

DATA COLLECTION SYSTEM
AUTOMATIC PROCESSING SYSTEM
(DAPS)

OPERATOR/MANAGER MANUAL

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1.0 INTRODUCTION

This manual describes commands and features of the Data Collection System (DCS) Automatic Processing System (DAPS) that may be used by an operator or manager. Control and management of the DAPS system is provided through an interactive online command interface and a collection of offline utilities. The manual is arranged in the following manner:

Section 2 of the manual is an overview of the hardware, software, database and operations of the DAPS system which has been provided in order to give the operator/manager a sufficient background to appreciate the capabilities and related operational considerations for the system.

Section 3 describes the Operator/Manager Online Command Interface. A description of how to activate the Online Command Interface and the various fields displayed on the operator/manager's terminal is provided. In addition, this section contains general information on command entry such as abbreviations, special arguments, help features, command files and batch processing.

Section 4 provides specific information on DAPS operations and management functions available through the Online Command Interface. Such functions include:

- DCP message related functions
- Platform related functions
- Channel related functions
- NWSTG related functions
- DOMSAT related functions
- Asynch dial-in line related functions
- DCS User related functions
- Interrogate Modulator and Test Transmitter related functions

Section 5 describes the available offline functions. Such functions include:

- a Look Angle utility
- Mapping functions
- DBMS access through the PRESENT Information Presentation Facility
- Report generation functions
- Database archiving functions

Section 6 describes how to start up, shut down and switch over the DAPS system.

Appendix A is a list of the DAPS Online commands available to an operator, manager or dialin user.

Appendix B is a complete list of the DAPS Online commands with descriptions, syntax and examples for each command.

Appendix C is a list of the DAPS DBMS tables that are modifiable through the Online Command Interface. Each table contains a list of modifiable parameters with description and access rights.

Appendix D contains a description of all DAPS DBMS tables as defined through DG/SQL, the Data General DBMS package. This appendix has been included as an aid to writing queries through the DG PRESENT utility.

Appendix E contains samples of all displays generated by the Online Command Interface.

Appendix F contains samples of all reports generated by both the Online Command Interface and the offline report utilities.

Appendix G contains the online command files used to initially configure the DAMS demodulator drawers and slots.

Appendix H contains the online command file used to enable all defined event messages and alarms.

2.0 DAPS SYSTEM OVERVIEW

This section describes the DAPS system in terms of how it fits in the overall DCS System, its architecture, its hardware and software organization, and its database.

2.1 DAPS as Part of the DCS System

The GOES DCS is a data relay system which enables a large variety of environmental data to be gathered from point sources, data collection platforms (DCPs). The platforms transmit their data to GOES which then relays the data to the NOAA/NESDIS station at Wallops Station, Va. The DCP data is received by the GOES S-band receive system and is routed to the DAPS. The DAPS automatically forwards all DCP data to users via a domestic satellite (DOMSAT) direct broadcast circuit. The DAPS also automatically transmits selected DCP data to DCS users via the National Weather Service Telecommunications Gateway (NWSTG; also referred to as the NMC in this manual). Further, the DAPS will disseminate data to DCS users via dialin telephone circuits at the user's request. The DAPS maintains the GOES DCS central database containing up to 100,000 platforms and 5000 users. The DAPS is designed to support the reception of over 1,000,000 messages per day on up to 233 DCS channels. The DAPS system supports existing and new interfaces. For channel assignment DAPS supports three types of demodulators:

- 27 - 100 bps demodulators
- 10 - 300 bps random reporting demodulators (new)
- 10 -1200 bps demodulators (new)

For test transmissions DAPS supports two test transmitters - the existing test transmitter and a new test transmitter, or two new test transmitters.

DAPS supports the two existing interrogate modulators, one for the east GOES satellite and one for the west GOES satellite. DAPS also supports the new IFPD interface for each satellite which gives information on the carrier status (IFPD).

DAPS supports operator and manager work stations. The operations area has three terminals, and the manager workstation remotely located at Camp Springs has two terminals.

DCP data or messages are disseminated to users in four ways:

- Via DOMSAT direct broadcast at 56 kbps. The DOMSAT broadcast is received by the DAPS data quality monitor which in turn automatically has the DAPS retransmit messages of poor quality.
- Via leased line (9600 bps) to the NWSTG (NMC) for selected platforms as indicated by the DAPS database.
- Via Asynch dialin lines upon user request. DAPS supports 10 dialin lines, at 300, 2400 or 9600 bps.
- Via an Experimental Internet Interface. DCS supports 6 nodes simultaneously.

2.2 DAPS Architecture

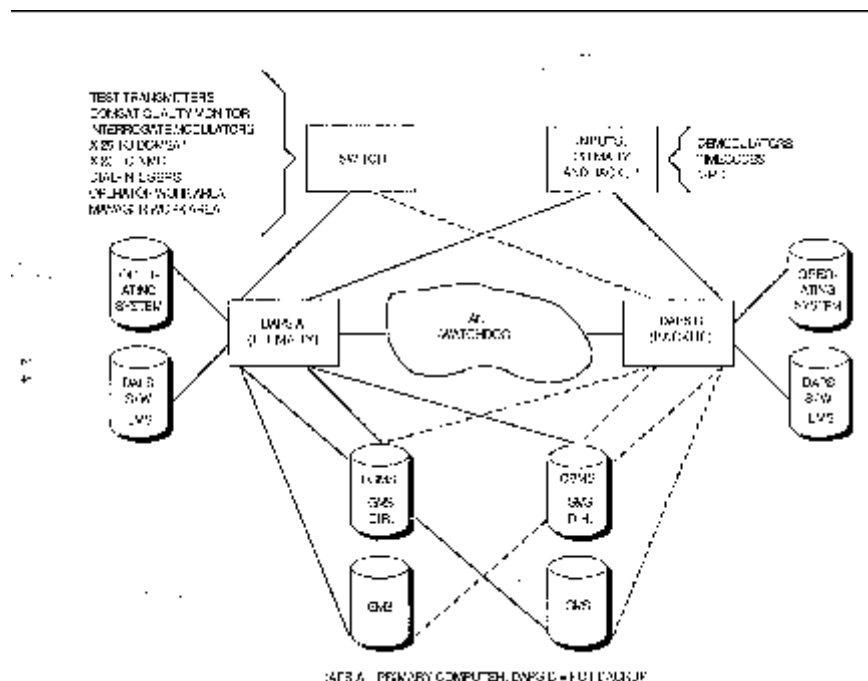
The DAPS system at Wallops consists of two Data General MV/20000 computers, with the following features:

- a. One of the computers is configured as the "primary" system, and the other as the hot "backup". The "backup" computer will take over whenever a failure is detected (automatic switch-over) or upon operator request (manual switch-over);
- b. The two computers are connected by a LAN, which is used to exchange watchdog messages and

- to transfer files;
- c. Each computer has two dedicated 592 MB disks: One for the system and application software, and the second, as a "Local" front-end storage for DCP messages;
 - d. DCP messages are ingested and saved in "Local" storage on both computers concurrently, to make sure single-point failures will not result in message loss;
 - e. The "primary" computer validates these messages and archives them in "Global" storage, residing on two dual-ported disks accessible from either computer;
 - f. The dual-ported disks are "mirrored" (shadowed), providing an automatic, instantaneous copy of all essential data, including:
 - The Global Message Storage and Directory;
 - An SQL-based (relational) DBMS
 - AOS/VS files for real-time support
 - g. Each computer has a dedicated line printer, and system console. All other external interfaces are connected to the "primary" computer through a switch, including:
 - Two interrogate modulators;
 - Two test transmitters (one old, one new);
 - DOMSAT Quality Monitor interface;
 - X.25 interface to DOMSAT;
 - X.25 interface to NMC (NWSTG);
 - Three CRT terminals and one laser printer in the operator work area;
 - Two CRT terminals and one laser printer in the manager work area;
 - Ten async modems for dial-in DCS users.
 - h. An RS232 line is provided as a backup to the LAN for watchdog functions.

Figure 2-1 shows the basic DAPS architecture. Section 2.3 provides a more complete description of the DAPS hardware. Sections 2.4 and 2.5 present an overview of the DAPS software and databases. Finally, Section 5 discusses in detail the switch-over scenarios which are central to the DAPS system failure and recovery strategy.

Figure 2-1: DAPS ARCHITECTURE



2.3 DAPS Hardware Overview

This section provides an overview of the DAPS hardware. Figure 2-2 contains the DAPS Block Diagram. The DAPS system is based on two identically configured Data General MV/20000 super mini-computers, designated DAPS A and B. The two computers either interface directly or via a 2-to-1 switch, designated the Fallback Switch, to the GOES DCS. The DAPS A and B computers communicate with each other over two dedicated interfaces, a high-speed Ethernet LAN and a backup RS-232 link. The DAPS system consists of five major functional hardware elements: the DAPS Computer Subsystem, the DAPS Communication Equipment, the DAPS Quality Monitor, the Operator Workstation, and the Remote Manager Workstation.

2.3.1 DAPS Computer Subsystem

The DAPS Computer Subsystem consists of two Data General MV/20000 computer systems implemented in a primary/hot backup (redundant) configuration. The following peripherals are provided with each system:

- 2 - 592 Mbyte disks
- 1600/6250 BPI Magnetic Tape Drive
- 600 LPM printer
- System user console (Telera 20 DDG)

In addition, four 592 Mbyte disks are shared between the two computer systems for storing GMS data files and directories, and GOES DCS database file entries. Under DAPS, only the MV2000 that is designated as primary can access the shared disks.

The MV/20000 series computer is a 32-bit virtual memory machine capable of executing instructions at over 6 MIPS. It is a true virtual device with a logical address space of 4 Gigabytes and a main memory capacity of 64 Mbytes.

As shown in Figure 2-2, both computer systems support the following external interfaces by direct connection:

- DAMS demodulators (up to 27)
- Random Reporting Demodulators (10)
- 1200 BPS Demodulators (10)
- Station Time (NASA36)
- IFPD status (up to four, two required)

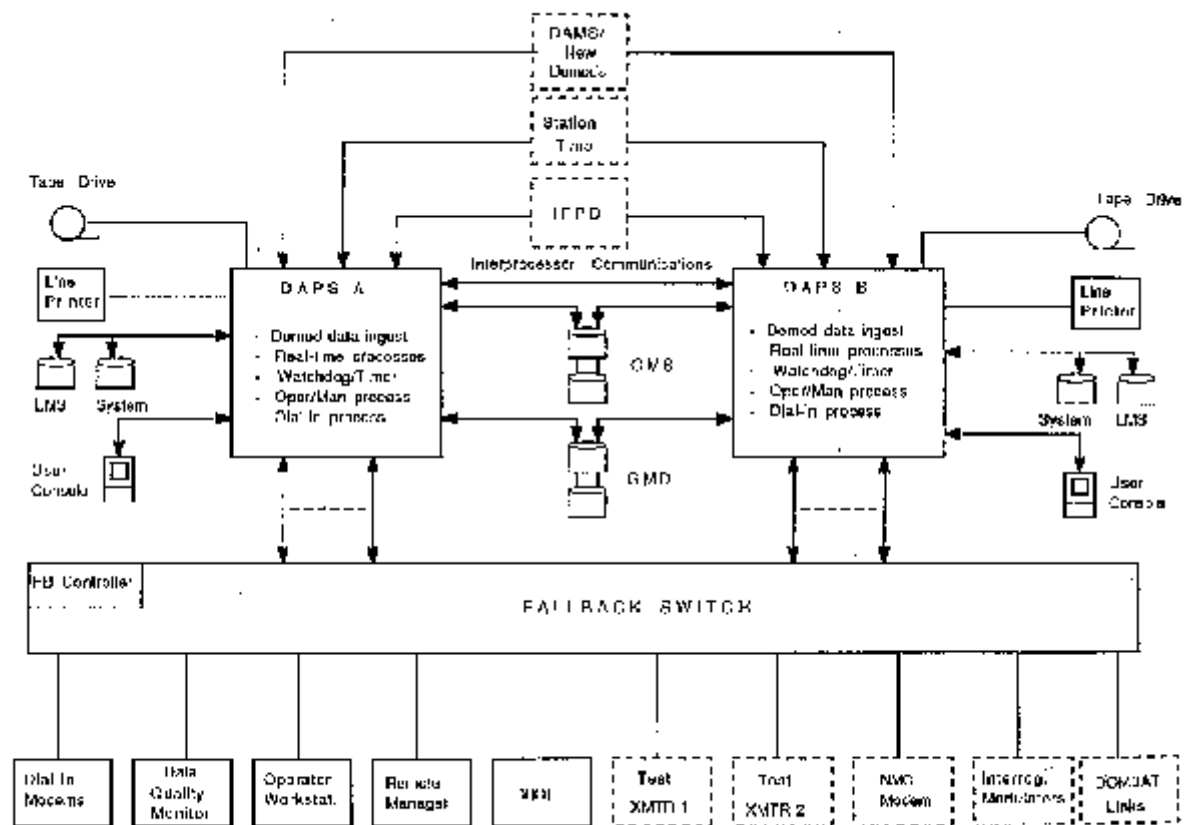
The remaining DAPS external interfaces shown in Figure 2-2 are supported by either computer system via the Fallback Switch.

2.3.2 DAPS Communication Equipment

The DAPS Communication Equipment consists of the communications circuit switch (Fallback Switch), the 10 dial-in modems, and the Remote Manager multiplexer and modem that are shown in Figure 2- 3.

The Fallback Switch contains 32 switch modules configured for 2- to-1 selection. The Fallback Switch is controlled via the DAPS such that all of the RS-232 standard lines are switched at once. The Fallback Switch is housed in two chassis (Unit 1 and Unit 2) with each module controlled remotely from the DAPS computers via the LSC-2-2 Controller. Manual operation is also provided.

Figure 2-2: DAPS BLOCK DIAGRAM



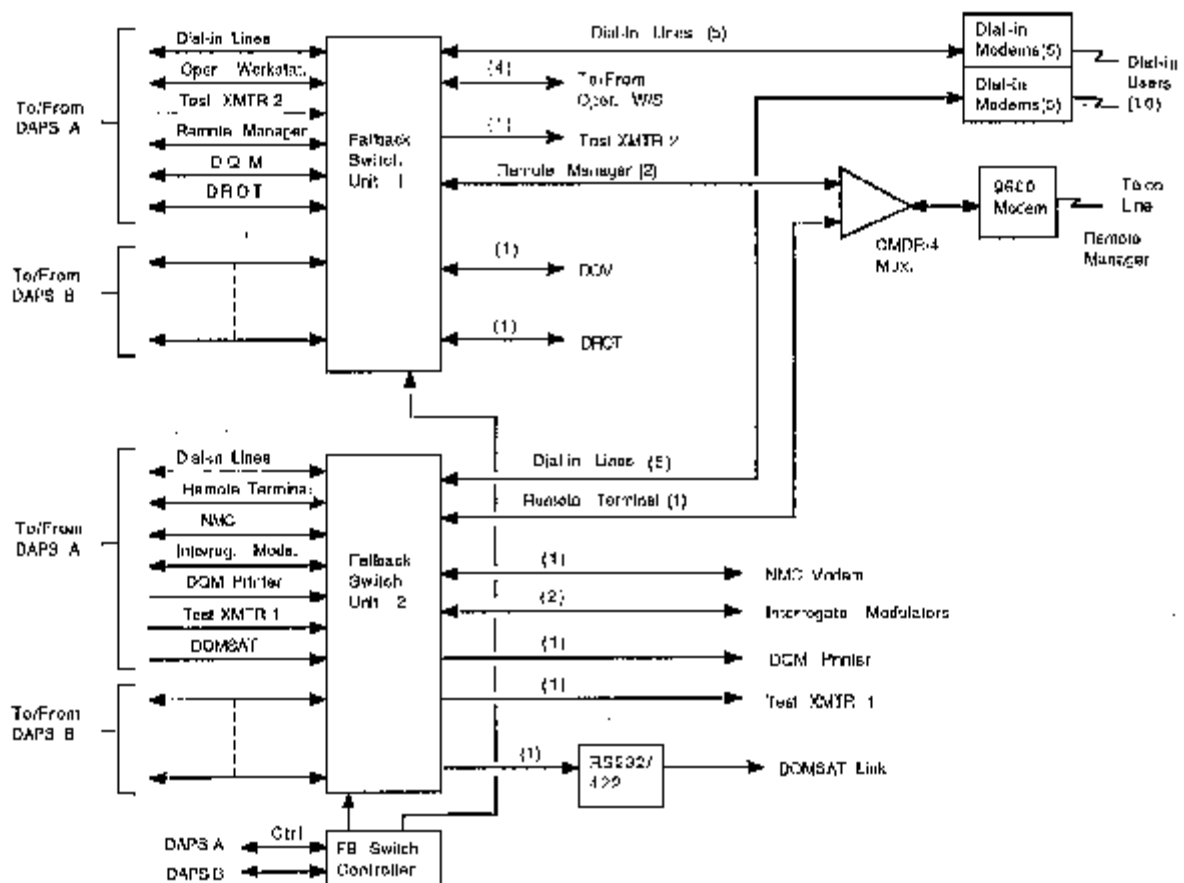
The DAPS system supports 10 external Asynch dial-in user interface circuits which are capable of operating at 300/1200/2400/9600 bps. The DAPS dial-in interface is from the MV20000 to UDS 224 modems which are housed in two rack-mount chassis.

The Remote Manager interface is provided via Infotron Commander-4 4:1 statistical multiplexer and 9600 bps point-to-point modems operating via a dedicated communications circuit between Wallops CDA Station and the World Weather Building.

As shown in Figure 2-3, the Operator Workstation interface consists of four RS-232 full-duplex asynchronous links, a graphics terminal, two non-graphics terminals, and a laser printer.

The remaining DAPS interfaces that operate via the Fallback Switch are: DOMSAT dissemination link, Test Transmitter 1 and 2, NMC Modem, Interrogate Modulator (2), DQM data and printer, and the DROT.

FIGURE 2-3 DAPS COMMUNICATIONS EQUIPMENT



E/14/C8

2.3.3 DAPS Quality Monitor

The DAPS Quality Monitor consists of the DOMSAT Quality Monitor (DQM) and the DROT functional elements. Both the DQM and DROT hardware are NEC PowerMate 386 PC/AT-compatible personal computers.

The DQM continuously monitors the DOMSAT communications downlink and reports status and error information to DAPS via a RS-232 line to the DAPS computers. A real-time display is also maintained for the operator. The DQM is located in the DAPS dual computer racks.

The DROT receives data from the DOMSAT communications downlink and archives messages from the DCP's in the user's network lists (up to five). The messages can be viewed, printed, or transmitted over the RS-232 line. The DROT is located on the Operator Workstation table.

2.3.4 Operator Workstation

The Operator Workstation consists of two Telera desktop terminals, a NEC graphics terminal, and a Dataproducts laser printer/plotter, all installed on Dacobas furniture which is situated in the DAPS workstation. Two additional monitor only Telera terminals are mounted on a shelf above the table top that are used to monitor the DAPS A and B system displays.

The Operator Workstation supports the DAPS operator process functions. The four functional units of the Operator Workstation are interconnected to the DAPS via the Fallback Switch.

2.3.5 Remote Manager Workstation

The Remote Manager equipment consists of a graphics terminal, a laser printer, a 9600 bps modem, and a Commander-4 Multiplexer all situated on the Workstation desk. An additional graphics terminal and a laser printer (locally connected only) are available for remote operations or local operations at the DAPS's manager's discretion.

The Remote Manager is remotely connected to the DAPS system via a dedicated and conditioned 9.6 kbps communications line. The Remote Manager supports the DAPS manager process functions.

2.4 DAPS Software Overview

2.4.1 ISI Implemented Software

DAPS is a two-computer real-time system, with multiple processes running at different priorities.

The following processes run on both MV/20000 computers concurrently, at all times except during system maintenance or special system testing:

a. Front-end Message Processor:

Ingests all incoming platform messages from the demodulators and stores them in the Local Message Storage (LMS) without extensive validation.

b. The Watchdog Process:

Periodically exchanges messages with its counterpart on the other system via an ETHERNET

based LAN (and an RS232 backup line), to initiate a switch-over if necessary. It also reads the NASA time and IFPD status.

c. The CLEANUP Process:

Cleans up queue entries and resource locks left in an unclean state by processes terminated abnormally.

d. The DAPS_ROOT Process:

The father process of the previous three. It is also used to execute any CLI macro on behalf of other DAPS processes.

The following processes run only on the "primary" DAPS computer:

a. The Real-time Processor (RT_PROCESSOR):

Handles most real-time functions, such as message and schedule validations; archiving of messages into Global Message Storage (GMS); platform interrogations and commanding; test-transmitter functions (manual/auto), channel blocking; status monitoring

b. Operator / Manager Online Command Interface (O_COMMAND):

Handles the man-machine interface functions for the operator and manager, including interactive and batch commands; macros; refreshed and static displays; alarm monitoring; mail and bulletins; online DBMS and message inquiries, etc. A separate process is started for every operator / manager interface, with different attributes for each.

c. The Dial-in Online Command Interface (D_COMMAND):

Handles all man-machine interface functions for the dial-in users, including interactive and batch commands; static (scrolled) displays; mail and bulletins; online DBMS and message inquiries, etc. A separate process is started for each user (up to ten).

d. The Check-point process (CHKPT_DAPS):

Handles the periodic checkpointing of all memory-resident real-time data structures, such as the Real-time database parameters, the Event Log, queues and statistics.

e. The INIT_DAPS Process:

Performs initializations and validations for the system that is about to become "primary", including the validation of check pointed data structures (e.g., GMS pointers).

f. The Batch Update Utility (B_COMMAND):

Handles the offline updates of platform, channel, and user descriptions, and network lists submitted in batch mode, on behalf of other online interface processes.

Other major ISI implemented software include:

a. DOMSAT Receive Only Terminal (DROT):

This software resides on a PC/AT. It monitors the DOMSAT link and captures messages for

DCPs which are in user's network list(s). Messages can then be selected according to specified criteria for viewing, displaying or transmission.

b. DOMSAT Quality Monitor (DQM):

This software resides on a PC/AT. It monitors the DOMSAT downlink, and reports status / error information to DAPS via an RS232 link. The DQM software can run on the DROT machine in case of a failure.

Finally, a number of offline utilities and report generators have been implemented to support the following functions:

- a. A Look-Angle utility, to compute the elevation and azimuth for DCP antenna, and determine satellite visibility for selected platform;
- b. A map filter utility, which runs under MS DOS to format a PRESENT file for input to the ATLAS graphics package.
- c. A utility to validate the contents of the DAPS databases.
- d. The report utilities include:
 - Daily and monthly platform summary reports
 - Daily and monthly channel activity reports
 - Monthly reports on test transmitter activity
 - Monthly user utilization reports
 - Monthly user summary reports
 - System outage reports

2.4.2 Vendor Supplied Software

Vendor supplied software include

a. AOS/VS Development Tools and Utilities:

Under this category are included those AOS/VS tools and utilities which are used during development, such as the Screen editor (SED), the FORTRAN compiler, the Macro- Assembler, the Language Run-time Library, the Library Editor, the SWAT debugger, the FIND utility, etc.

b. AOS/VS Operational Tools and Utilities:

Under this category are included those tools and utilities which are used during DAPS operations, such as the Performance Monitors (CPU TIME, MONITOR and PEED), the ZODIAC Network Management System and its various agents to manage resources (RMA), file transfers (FTA) and virtual terminals (VTA).

c. Relational DBMS, Report Generation and Graphics software:

This group includes the DG/SQL, PRESENT, TRENDVIEW and SORT / MERGE software delivered with the system.

d. Map Utility

The map utility is the Atlas Graphics package which runs on the NEC PC under the MS DOS operating system. The purchased map package and options includes support for countries of the world, states and counties for the United States, and provinces of Canada.

2.5 DAPS Database

The DAPS database consists of:

a. Global data structures residing on the dual-ported disks:

These can be accessed only by the online DAPS "primary" computer.

Examples:

- All DG/SQL relational (DBMS) tables;
- All Global real-time tables;
- The Global Message Storage (GMS);
- The Global Message Directory (GMD).

b. The Local data structures residing on the dedicated local disks:

There is a separate copy for each computer. Each computer can access only its own local copy.

Examples:

- The Local Message Storage (LMS);
- The Local Message Directory (LMD);
- All Local real-time tables.

In the DAPS system, there are two types of database tables:

a. DG/SQL (relational) tables:

They are used for non-time critical information, that is not likely to be accessed very often; they provide flexible data definition, query, reporting and charting tools.

b. Real-time tables:

They are used for any time-critical information. Their formats are hard-coded; they reside in files mapped and wired to memory, and thus provide efficient access. They need to be periodically check pointed.

Some of the DAPS parameters reside in both SQL and Real-time tables. The two copies of the information are automatically kept up to date, with few exceptions, such as statistics.

2.5.1 Global Message Storage and Directory

For each variable-length message archived by DAPS in the Global Message Storage (GMS), a fixed-length directory entry is made in the Global Message Directory (GMD), describing the message. Both GMS and GMD reside on the dual-ported, mirrored disks. They can be accessed only by the DAPS computer which is "primary" at the time.

Both the GMS and GMD are circular data structures, which wrap-around when full. The GMD consists of about 7,000,000 directory entries, sized for 7 days under maximum load conditions. The GMS consists of three separate files (extents), for 450 MBytes total, sized for 3 days under maximum load conditions. Regardless of the actual amount of data available in the GMS / GMD, the dial-in users can not retrieve more than the last 3 days of messages, whereas the operator or manager have no such restrictions.

Special indices and pointers are maintained for the GMS/GMD to allow more efficient access by time (for last seven days only), by platform and by channel.

Due to their size, only a very small portion of the GMS/GMD can be maintained in memory. GMS/GMD pointers are check pointed every minute. At system initialization (i.e., after a switch-over), DAPS "rolls back" to a previously check pointed state (as much as 2 minutes old), then "rolls forward" from that state, recovering the missing data from the Local Message Storage.

2.5.2 Local Message Storage and Directory

For each variable-length message stored by the DAPS Front-end software in the Local Message Storage (LMS), a fixed-length directory entry is made in the Local Message Directory (LMD), describing the message. A separate copy of the LMS and LMD exist on both DAPS computers, on dedicated local disks.

Both the LMS and LMD are circular data structures, which wrap-around when full. They are basically used as large FIFO buffers for the DAPS Real-time process, sized to hold about 1,000,000 messages and 150 Mbytes (one day's worth under maximum loading conditions). Unlike the GMS/GMD, no special indices or pointers are maintained to allow efficient access by time, platform or channel, since access is strictly FIFO. The LMS/LMD buffers are also periodically check pointed.

2.5.3 Event Log

The Event Log is another one of the circular data structures residing on one of the dual-ported mirrored disks, mapped to virtual memory for shared access by different processes, wired to physical memory for efficiency. It can contain up to 7000 messages (sized for 7 days) before it wraps around. All significant events, alarms, bulletins, and important operator / manager commands are recorded in the log for viewing. Each message text is accompanied by the time of day, event message number, event type, and DAPS computer ID.

2.5.4 DG/SQL (DBMS) Tables

The DG/SQL tables are used to define the DAPS users, platforms, channels, and other hardware, and to compile statistics and other management information for the above. The tables which are listed in these section are defined in detail in Appendix D :

- a. Channel_Description_Table (CDT) : Describes the parameters defining each channel, and some of their attributes.

- b. Channel_Statistics_Table (CST): Used to save monthly statistics for each channel, for the last 12 months.
- c. Dialin_Statistics_Table (LST): Used to save monthly statistics for each one of the ten dial-in lines, for the last 12 months.
- d. DOMSAT_Statistics_Table (DST): Used to save monthly statistics for DOMSAT, for the last 12 months.
- e. Mail_Storage_Table (MST): Used to store all DAPS mail for the last 3 days.
- f. Memorandum_of_Agreement_Table (MOA): Used to store all memoranda of agreement for all users.
- g. NMC_Statistics_Table (NST): Used to store monthly statistics for NMC, for the last 12 months.
- h. Platform_Description_Table (PDT): Used to save all parameters defining and describing all platforms defined in the database.
- i. Platform_Statistics_Table (PST): Used to save statistics for every platform, for the last full day, the current month, and the previous month.
- j. Radio_Description_Table (RDT): Describes each DCPRS and its current certification status.
- k. System_Outage_Log (SOL): Describes each system outage, time, duration, etc.
- l. System_Outage_Log_Cause_Table (SCT): Contains a text for each outage cause referenced by the SOL table.
- m. System_Hardware_Status (SHS): Contains the current status of every hardware component in the system.
- n. User_Description_Table (UDT): Contains an entry for every valid DCS user in the system.
- o. User_Network_list (UNL): Defines all user network lists, one entry for every user_id, list_id, platform_id combination.
- p. User_Statistics_Table (UST): Contains monthly statistics for every user, for the last 12 months.
- r. User_Summary_Table (USU): Contains the monthly summary of users by type and major organization for the last 12 months.

2.5.5 Real-time Files

The following is a list of the real-time global parameters which are memory-resident:

- a. Channel parameters and statistics;
- b. Operator / manager console parameters;
- c. Demod drawer and slot parameters;
- d. DOMSAT parameters, queues and statistics;
- e. Interrogate Modulator parameters and queues;
- f. Channel Blocking queues;
- g. Dial-in parameters and statistics;

- h. Event message and alarm definitions;
- i. NMC parameters, status and statistics;
- j. Platform parameters and statistics;
- k. Quality Monitor parameters and statistics;
- l. Spacecraft parameters;
- m. Test transmitter parameters and queues.

The above parameters are mapped into the following global files on the dual-ported mirrored disks:

- a. DBMS parameters (AB_DBMS.DAT):

This file contains those parameters which define consoles, platforms, channels, demods, test transmitters, event messages, etc. They are usually a subset of their counterparts in the SQL tables. They get check pointed immediately after every UPDATE operation.

- b. Run-time parameters (AB_RUNTIME.DAT):

This file contains the various queue elements and pointers which require periodic checkpointing (once a minute).

- c. DAPS Statistics (AB_STATS.DAT) :

This file contains platform, channel, line, NMC, DOMSAT, and Quality monitor statistics, check pointed every 5 minutes.

- d. Miscellaneous Parameters (AB_MISCEL.DAT):

This file contains miscellaneous parameters which need not be check pointed but nevertheless are mapped into a file for shared access.

The following is a list of the real-time local parameters which are memory-resident:

- a. Watchdog parameters and buffers;
- b. Demod status and statistics;
- c. IFPD and time information.

The above parameters are mapped into the local file DL_PARMS.DAT.

3.0 DAPS OPERATOR/MANAGER ONLINE COMMAND INTERFACE

This section describes the DAPS Operator/Manager Online Command Interface. An explanation of how to activate the Online Command Interface and a description of various fields displayed on the operator/manager's terminal is provided. In addition, this section contains general information on command entry such as abbreviations, special arguments, help features, command files and batch processing.

3.1 Activating the Online Command Interface

This section describes how to log onto the MV20000 computer and activate the Online Command Interface.

3.1.1 Operator/Manager Signon Procedures

The operator or manager can log on the "primary" DAPS system, on a terminal physically connected to that system via the fall-back switch. The system prompts the user for a username and password:

AOS/VS 7.64.00.00 / EXEC-32 7.64.00.00 dd-mmm-yy hh:mm:ss @CONx

Username:

Password:

Three attempts to provide a valid username - password combination are allowed. After three unsuccessful attempts, the operator / manager terminal is locked-out for 10 seconds. The valid usernames are:

- a. OPR, for the operator;
- b. MGR, for the manager;
- c. DBMSMGR, for the DBMS manager;
- d. DAPS, for the system manager.

The password is a 6 to 15 character field, which may be changed by the user during the sign-on procedure:

- a. When prompted for a password, the old password must be entered, followed by the special character CTRL-L, rather than the usual NewLine;
- b. The system reprompts the user for the new password; the user must retype the new password, and terminate it by a Newline (the new password is not echoed, as usual, for security reasons);
- c. The new password becomes effective immediately.

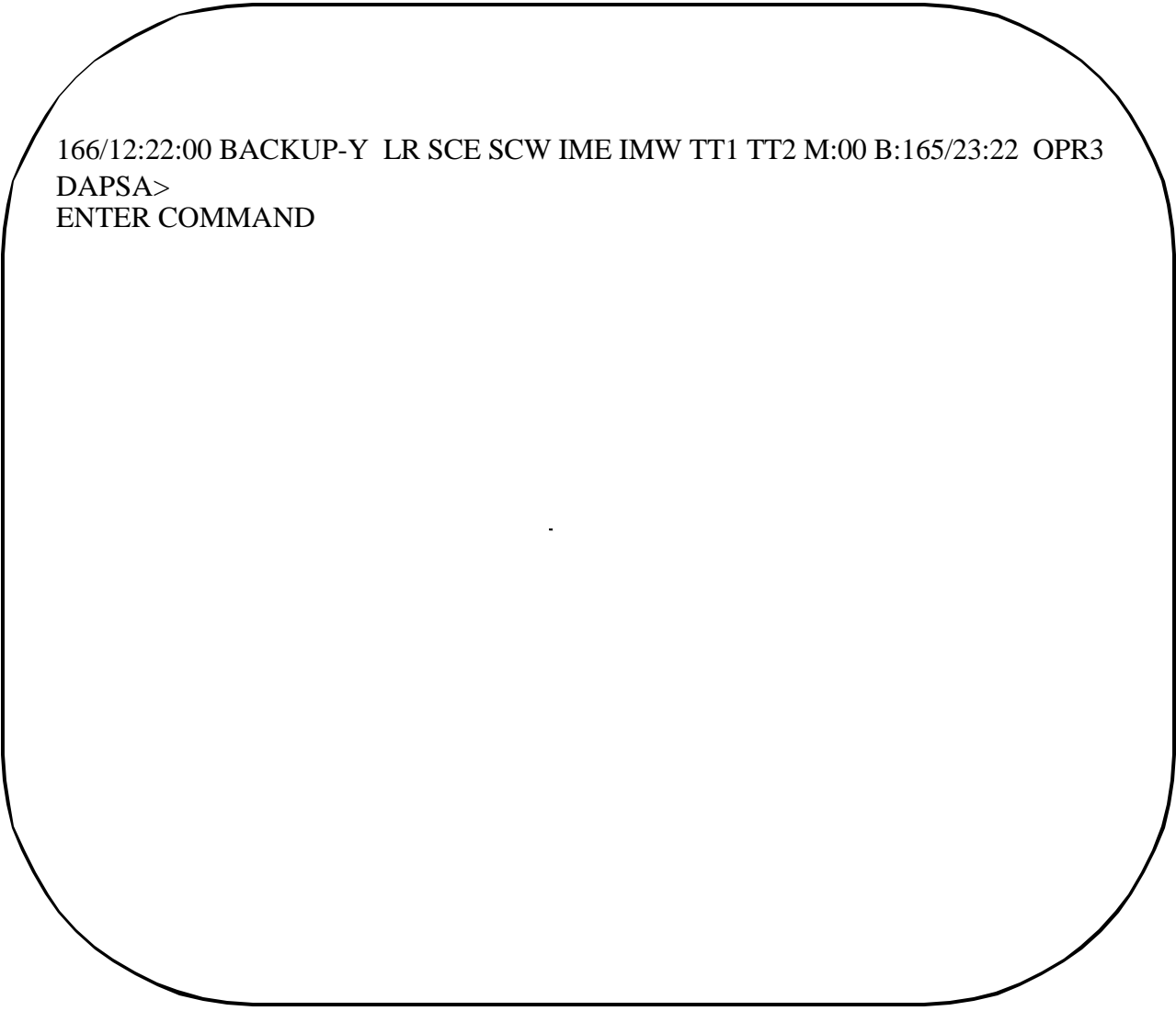
3.1.2 Starting the Online Command Interface

After a successful signon, the system displays an initial logon banner. At this point, you will be in Data General's Command Line Interpreter (CLI) program. This is indicated by the CLI prompt, '>'. To activate the Online Command Interface enter:

DAPS

After a brief initialization, the screen shown in Figure 3-1 will appear. At this point you will be able to enter DAPS commands.

FIGURE 3-1: DAPS ONLINE COMMAND INTERFACE SCREEN



166/12:22:00 BACKUP-Y LR SCE SCW IME IMW TT1 TT2 M:00 B:165/23:22 OPR3
DAPSA>
ENTER COMMAND

3.2 Online Interface Screen Format

The DAPS online display screen is divided into 5 areas (See Fig. 3-1). The five areas are:

Header Line - (Line 1) a periodically refreshed (1 sec.) header field displaying various system status indicators. These status indicators, as seen from left to right on Fig. 3-1, are:

166/12:22:00 - current GMT shown in DDD/HH:MM:SS format. Reverse-video indicates source of time is from Data General system clock rather than NASA time-code reader.

BACKUP-Y - indicates status of backup computer. Normal- video indicates backup system is online. Reverse-video indicates backup computer is offline. 'Y' indicates auto-switch is enabled, 'N' indicates auto-switch is disabled.

LR- indicates status of LAN (L) and RS232 (R) links between primary and backup computers. Normal_video indicates link is operational. Reverse-video indicates link is not operational.

SCE SCW - indicates whether interfaces with east GOES spacecraft (SCE) and west GOES spacecraft (SCW) are enabled. Normal-video indicates enabled, reverse-video indicates disabled.

IME IMW - indicates whether interfaces with east Interrogate Modulator (IME) and west Interrogate Modulator (IMW) are enabled. Normal-video indicates enabled, reverse-video indicates disabled.

TT1 TT2 -indicates whether interfaces with Test Transmitter 1 (TT1) and Test Transmitter 2 (TT2) are enabled. Normal-video indicates enabled, reverse-video indicates disabled.

M:00 - indicates the number of pieces of mail that have been received since the last time mail was displayed or printed. Reverse-video when non-zero.

B:165/23:22 - indicates the date/time of the last bulletin issued in DDD/HH:MM format. Reverse video if a bulletin has been issued in last 30 seconds.

OPR - indicates user id (OPR or MGR).

3 - indicates console number (1 - 7).

Command Entry Line - (Line 2) used for command entry and the echoing of lines executing from a command file. The system id is displayed as the first 5 letters on this line (DAPSA in Fig. 3- 1).

Prompt/Response Line - (Line 3) used for prompts for command input and command execution responses.

Display Area - (Lines 4 - 21) displays 18 lines (one page) of the currently active display.

Alarms Area - (Lines 22 - 24) are used for the display of alarms. Acknowledged alarms are displayed in normal-video. Unacknowledged alarms are displayed in reverse-video.

3.3 Command Entry

This section provides general information that is applicable to the entry and execution of all DAPS commands.

3.3.1 Command Line Syntax

Commands are composed of a command keyword and zero or more command arguments. Commands are free-formatted with one or more blanks (space) used as delimiters between command arguments. The command line itself is limited to 72 characters. Commands may be extended over as many lines as needed

by entering the continuation character, '&', on the command line.

Example: UPDATE UDT USR001 OPR_NAME_FIRST = JIM OPR_NAME_LAST = &
SMITH OPR_PHONE = 321-1234 END

Comments may be entered on a command line after the comment symbol, '!', or after a continuation character, '&'.

3.3.2 Abbreviations

Command keywords may be abbreviated. The shortest acceptable abbreviation is the smallest number of characters, beginning with the first character, that uniquely identifies the command.

Example: U may be used to abbreviate UPDATE while SE, SN, SU and SW must be used to uniquely identify SEND, SNAP, SUBMIT and SWITCH, respectively.

Some keywords in command arguments may be abbreviated. Refer to the section on the particular command for more information on command argument keyword abbreviations.

3.3.3 Text String Arguments

Command arguments which contain embedded blanks (i.e. blank spaces) must be enclosed in quotes (") in order to identify the argument field as a string.

Example: OPR_ADDR = "100 E. ELM STREET"

3.3.4 Date/Time Arguments

Certain command arguments used for selection require date and time values (DISPLAY, DELETE, RETRANSMIT). In such cases, date and time should be input in the following format:

YYDDD/HH:MM:SS

where YY is the year (ex. 89), DDD equals the Julian day of year and HH, MM and SS equal hour, minute and second, respectively. Some of these fields may be omitted when entering the argument with default values being supplied. YY and DDD default to current year and current day of year when omitted. HH MM and SS all default to 00 when omitted. The following examples assume the current date to be day 180 of 1989.

Example: 180/ is equivalent to 89180/00:00:00.

Example: 15 is equivalent to 89180/15:00:00.

Example: 21:30 is equivalent to 89180/21:30:00.

3.3.5 Optional Arguments

Certain commands accept optional arguments which have default values if not entered. An omitted optional argument is indicated on the command line by a single placeholder comma, ',', enclosed by delimiting blanks.

Example:

DISPLAY MAIL , 261/10:00 ! Use the default value for since ! argument

In the case where all remaining command arguments are optional and the default values are to be used, the place holding commas may be omitted.

Example:

DISPLAY MAIL ! Use defaults for since and until ! arguments

Refer to Appendix B for a summary of commands with optional arguments and default values.

3.3.6 Command Line Editing

The following keys provide command line editing capabilities:

CTRL-A - moves cursor to end of line. Also repeats last command entered.

CTRL-E - enters/exits the insert character mode.

CTRL-H - moves cursor to beginning of line (same as HOME key).

CTRL-X - moves cursor to the right one character (the right arrow key on the function keypad has the same effect).

CTRL-Y - moves cursor to the left one character (the left arrow key on the function keypad has the same effect).

CTRL-U - deletes all characters on line (or all characters which have not been processed if command is in prompt mode).

DEL or BACKSPACE key - erases character to the left of cursor and closes up line.

ESC key - terminates the current command.

3.3.7 Command Processing

Commands entered on the command input line are submitted for processing by pressing the ENTER key. When a command is processed, if any required fields are missing the operator/manager will be prompted for the necessary input on the current input line.

Example:

```
DAPSA> DISPLAY QUEUE  
ENTER QUEUE NAME (IME,IMW,TT1,TT2,BT1,BT2,BACKLOG,USER)
```

Additionally, if any argument fields are in error, an error message will be output, and the cursor will be set to the beginning of the field in error. At this point the command may be corrected and resubmitted or terminated via the ESC key.

Example:

```
DAPSA> DISPLAY QUEUE INE
```

INVALID QUEUE NAME

Note - fields to the left of field in error have already been processed and may not be modified.

3.3.8 Command Help

The operator/manager may request help on commands by using the HELP command or by entering '?' or '?L' while entering a command. The '?' request generates a single line prompt while the '?L' request generates a full screen help display.

Examples:

```
DAPSA> DISPLAY ?  
ENTER DISPLAY NAME
```

```
DAPSA> DISPLAY ?L  
ENTER DISPLAY NAME
```

The following displays are available:

USER_PARMS - displays the user's entry in the User
Description Table.

PLATFORM_PARMS - displays an entry for a specified DCP in
the Platform Description Table.

3.3.9 Command Files

Command entry may be automated through the use of command files (macro capability). Command files are created offline by a text editor (SED, for example) and are invoked online by name or with the optional command keyword, EXECUTE. Command files must be created with the extension, '.CMD', to identify them to the DAPS software.

Commands are executed sequentially from the command file with the currently executing command being displayed on the command input line. Missing required arguments and arguments in error generate prompts for input in the same manner as commands input manually. Commands that terminate in error cause command file execution to enter a unconditional wait state. While the command file is in this wait state commands may be entered manually, if necessary. Command file execution may be reactivated through the GO command or the command file may be terminated by the KILL command.

3.3.10 Dummy Arguments

Dummy arguments provide a means to pass variable arguments to a command file in order to increase the versatility of the command file. Actual arguments supplied when the command file is invoked are substituted for the dummy arguments specified in the body of the command file.

Example:

A command file called DMP.CMD may be created with the following contents:

```
DISPLAY MESSAGE_FILE PLATFORM_ID %1%
```

The command file may be invoked online by entering:

```
DAPSA> DMP CE1432AB
```

which will result in the actual argument, CE1432AB, being substituted for the dummy argument, 1. The command will appear on the command input line as:

```
DAPSA} DISPLAY MESSAGE_FILE PLATFORM_ID CE1432AB
```

(Note - The 'DAPSA}' prompt rather than the 'DAPSA>' prompt indicates the command file is active.)

As can be seen from the example above, dummy arguments are represented in the command file as a number enclosed by percent signs. The number represents the numerical position of the actual argument supplied when the command file is called. For instance, 1 represents the first argument, while 3 would represent the third argument. There are six dummy arguments available (1 through 6). Each argument may contain up to 8 characters.

When argument substitutions are performed on a line of a command file, if a dummy argument has no associated actual argument (i.e.; no argument was supplied when the command file was invoked), the dummy argument will be expanded to a single blank (' '). This is useful for passing optional arguments to commands in command files.

Example:

The DMP. CMD command file described above could be modified to handle the optional since, until and type arguments by adding dummy arguments, 2, 3, and 4.

```
DISPLAY MESSAGE_FILE PLATFORM_ID %1% %2% %3% %4%
```

The command file could be invoked by:

```
DAPSA> DMP CE13240A 124/ 125/ G?U
```

with the substitutions being performed and the command input line displaying:

```
DAPSA} DISPLAY MESSAGE_FILE PLATFORM_ID 124/ 125/ G?U
```

Additionally the command file could be invoked by:

```
DAPSA> DMP CE13240A 124/
```

with substitutions being:

```
DAPSA} DISPLAY MESSAGE_FILE PLATFORM_ID CE13240A 124/
```

3.3.11 Batch Command Processing

The DAPS system provides a batch processing capability for a limited subset of DAPS commands. The commands are:

```
ADD CHANNEL
ADD NETWORK_LIST
ADD PLATFORM
```

ADD USER
DELETE CHANNEL
DELETE NETWORK_LIST
DELETE PLATFORM
DELETE USER
UPDATE CHANNEL
UPDATE PLATFORM
UPDATE USER

The commands are oriented toward maintenance of the DAPS DBMS and provide for mass modifications to DAPS tables. The command files, created in the same manner as command files to be run online, are submitted for batch execution through the SUBMIT command. Results of the batch command file execution are received through the mail facility. Refer to the SUBMIT command description in Appendix B for more information.

4.0 DAPS ONLINE FUNCTIONS

This section describes DAPS control and management functions available to the operator/manager through the Online Command Interface. Such functions include the control and management of:

- DCP messages
- Platforms (DCPs)
- Channels
- DAMS Demodulator drawers and slots
- Interrogate Modulators
- Test Transmitters
- DOMSAT transmissions
- NMC (NWSTRG) transmissions
- Asynch Dial-in Lines

The major functions provided by online commands are presented in this section, however, this section does not cover every online command available to the operator/manager. For a full summary of DAPS commands available through the Online Command Interface refer to Appendix B.

4.1 DCP Message Related Functions

This section describes functions available for the display and management of DCP messages.

4.4.1 MESSAGE_FILE and CHANNEL_ACTIVITY Displays

The MESSAGE_FILE and CHANNEL_ACTIVITY displays provide a means to view DCP messages and message related information stored in the Global Message Storage and the Global Message Directory.

The MESSAGE_FILE display (see Figure E-1) contains information from the message header as well as the actual message itself and requires multiple lines of output for each message selected. The CHANNEL_ACTIVITY display (see Figure E-2) contains selected information from the message header only which is output on a single line for each message selected. Because of the amount of output generated by the MESSAGE_FILE display, it is generally preferable to use the CHANNEL_ACTIVITY display initially when searching for a specific message. Both commands have the same options in the format:

```
DISPLAY name ALL [since] [until] [types]
      PLATFORM_ID platform_id [since] [until] [types]
      CHANNEL_ID channel_id [since] [until] [types]
      LIST_ID user_id list_id [since] [until] [types]
      LIST_CHANNEL user_id list_id channel_id [since] [until] [types]
```

where name is MESSAGE_FILE or CHANNEL_ACTIVITY

The operator or manager can limit the range of the messages to be viewed by specifying an optional time range:

- a. A start time [since], i.e., time of the earliest message to be retrieved. By default, this will be the time of the oldest message in the Global Message Storage.
- b. An end time [until], i.e., time of the latest message to be retrieved. By default, this will be the time of the latest message in the Global Message Storage.

The operator or manager can also limit the range of the messages to be viewed, by specifying the optional [types] of messages to be retrieved. This can be done by concatenating the desired type(s) into one string,

in any order. The default option is to view all types. Refer to the format of the DISPLAY MESSAGE_FILE command for a description of the valid message types.

Messages are displayed / printed in reverse chronological order, i.e., the most recent messages appear first.

The following sections describe use of options of the DISPLAY MESSAGE_FILE and DISPLAY CHANNEL_ACTIVITY commands in more detail.

4.1.1.1 Viewing Messages Received from a Specific Platform

DCP messages received from a platform, or validation errors specific to a platform, can be viewed (i.e, displayed on the operations console, or printed), by invoking the DISPLAY MESSAGE_FILE or DISPLAY CHANNEL_ACTIVITY command with the PLATFORM_ID suboption.

The operator or manager can view messages from any platform, by specifying its address, provided the platform is currently defined in the Platform Description Table (PDT):

Examples:

```
DI MSG PLATFORM_ID CE61BF46 146/ 147/10:30
! Displays all messages for DCP CE61BF46
!           since the start of day 146
!           until day 147, 10:30
```

```
DI MSG PLATFORM_ID CE61BF46 146/ , WD
! Displays all messages for DCP CE61BF46
!           since the start of day 146
!           until now
!           which are of type W or D
```

4.1.1.2 Viewing Messages Received on a Specific Channel

DCP messages received on a channel, or validation errors on a given channel, can be viewed (i.e, displayed on the operations console, or printed), by invoking the DISPLAY MESSAGE_FILE or DISPLAY CHANNEL_ACTIVITY command with the CHANNEL_ID suboption.

The operator or manager can view messages received on a channel by specifying its channel number and GOES spacecraft provided the channel is currently defined in the DAPS database (CDT):

Viewing messages by channel is in general slower than querying by platform (PLATFORM_ID suboption) or by time (ALL suboption), especially if the messages to be retrieved are not current, and / or if there is a lot of activity on the channel.

Examples:

```
DI MSG CHANNEL_ID 123E 146/ 147/10:30
! Displays all messages for channel 123E
!           since the start of day 146
!           until day 147, 10:30
```

```
DI MSG CHANNEL_ID 123E 146/ , WD
! Displays all messages for channel 123E
!           since the start of day 146
```

```

!           until now
!           which are of type W or D

DI CHANNEL_ACTIVITY CHANNEL_ID 123E 146/ 147/10:30
! Displays all message headers for channel 123E
!           since the start of day 146
!           until day 147, 10:30
DI CHANNEL_ACTIVITY CHANNEL_ID 123E 146/ , WD
! Displays all message headers for channel 123E
!           since the start of day 146
!           until now
!           which are of type W or D

```

4.1.1.3 Viewing Messages Received from Platforms on a User's Network_list

DAPS allows each DCS user to define up to five (5) network_lists, where each network_list can contain a variable number of valid platform addresses. This enables an operator, a manager or a user, to view messages for all DCPs defined on the network list (both platform and error messages), by invoking the DISPLAY MESSAGE_FILE or DISPLAY CHANNEL_ACTIVITY commands with the LIST_ID suboption.

The operator or manager can view messages from all platforms on the network_list of any user, by specifying the username followed by a list_id (1-5).

Examples:

```

DI MSG LIST_ID CEMRO1 2 146/ , WD
! Displays all messages for user CEMRO1's
!           network_list # 2
!           since the start of day 146
!           until now
!           which are of type W or D

```

4.1.1.4 Viewing Messages Using a Channel and Network_list Combination

The operator or manager can view messages for all DCPs defined on a given user's network_list, which have been received on a specified channel. The DISPLAY MESSAGE_FILE or DISPLAY CHANNEL_ACTIVITY command can be used, with the LIST_CHANNEL suboption, followed by the username, a list_id (1-5) and the channel address.

Messages are displayed / printed in the same order as the DCPs appear in the network_list. Furthermore, they are organized in reverse chronological order for each platform on the network_list.

Examples:

```

DI MSG LIST_CHANNEL CEMRO1 2 123E 146/ , WD
! Displays all messages for user CEMRO1's
!           network_list # 2
!           on channel 123E
!           since the start of day 146
!           until now
!           which are of type W or D

```

```
DI CHANNEL_ACTIVITY LIST_CHANNEL CEMRO1 2 123E 146/ , WD
! Displays all message headers for user CEMRO1's
!      network_list # 2
!      channel_id 123E
!      since the start of day 146
!      until now
!      which are of type W or D
```

4.1.1.5 Viewing Messages with Garbled (Uncorrectable) Addresses

DCP messages with garbled addresses which can not be corrected are placed in a separate "Junk" queue. It is possible to view these messages or just the headers, by using the DISPLAY MESSAGE_FILE or DISPLAY CHANNEL_ACTIVITY commands. The following options are available to the operator or manager:

- a. Using the designated pseudo-DCP address "BBBBBBBB" for messages with garbled addresses:

This is the most efficient way of searching for garbled addresses. Either the DISPLAY MESSAGE_FILE or the DISPLAY CHANNEL_ACTIVITY command can be used, with the PLATFORM_ID suboption. The former is the preferred approach if the actual garbled addresses (or the message texts) are of interest.

Examples:

```
DI MSG PLATFORM_ID=BBBBBBBB 146/ , G?
! Displays texts for all garbled messages
!      since day 146 00:00
!      until now
!      only of type G or ?
!      (no error texts)
```

```
DI CHANNEL_ACTIVITY PLATFORM_ID=BBBBBBBB 146/ , G?
! Displays headers for all garbled messages
!      since day 146 00:00
!      until now
!      only of type G or ?
!      (no error texts)           ! Does not display the garbled addresses
```

- b. Using the Message type "B" designator for messages with garbled addresses.

This is by far the least-efficient way of searching for garbled addresses. It does enable, however, anybody to view garbled messages or headers by CHANNEL_ID, using either the DISPLAY MESSAGE_FILE or DISPLAY CHANNEL_ACTIVITY commands. Again, the MESSAGE_FILE option should be used if the actual garbled addresses (or message texts) are of interest.

Example:

```
DI MSG CHANNEL_ID=123E 146/10:30 146/12:00 B
```

4.1.1.6 Viewing Messages with Invalid Addresses

DCP messages with invalid addresses which are not in the DAPS database are placed in a separate "Junk" queue. It is possible to view these messages or just the headers, by using the DISPLAY MESSAGE_FILE or DISPLAY CHANNEL_ACTIVITY commands. The following options are available to the operator or manager:

- a. Using the designated pseudo-DCP address "AAAAAAAA" for messages with invalid addresses:

This is the most efficient way of searching for invalid addresses. Either the DISPLAY MESSAGE_FILE or the DISPLAY CHANNEL_ACTIVITY command can be used, with the PLATFORM_ID suboption. The former is the preferred approach if the actual invalid addresses (or the message texts) are of interest.

Examples:

```
DI MSG PLATFORM_ID=AAAAAAAA 146/ , G?
! Displays texts for all invalid messages
!       since day 146 00:00
!       until now
!       only of type G or ?
!       (no error texts)
```

```
DI CHANNEL_ACTIVITY PLATFORM_ID=AAAAAAAA 146/ , G?
! Displays headers for all invalid messages
!       since day 146 00:00
!       until now
!       only of type G or ?
!       (no error texts)           ! Does not display the invalid addresses
```

- b. Using the Message type "I" designator for messages with invalid addresses.

This is by far the least-efficient way of searching for invalid addresses. It does enable, however, anybody to view invalid messages or headers by CHANNEL_ID, using either the DISPLAY MESSAGE_FILE or DISPLAY CHANNEL_ACTIVITY commands. Again, the MESSAGE_FILE option should be used if the actual invalid addresses (or message texts) are of interest.

Example:

```
DI MSG CHANNEL_ID=123E 146/10:30 146/12:00 I
```

4.1.2 Monitoring Message Storage

The SYSTEM_SUMMARY (Figure E-5) and GMLM_PARM displays (Figure E-10) can be used to track the current contents of both Local and Global Message Storage, including:

- a. The times of the first and last messages in each storage;
- b. The directory pointers for first and last messages.

In addition to the DISPLAY MSG and DISPLAY CHANNEL_ACTIVITY commands to view the contents of the Global Message Storage, the operator has two diagnostic tools to view the contents of the GMS, and its associated Global Message Directory (GMD):

DISPLAY GMS (start-byte:end_byte) (refer to Figure E-11)
DISPLAY GMD (start-pointer:end-pointer) (refer to Figure E-12)

The corresponding diagnostic commands to view the contents of the Local Message Storage (LMS) and its associated Local Message Directory (LMD) are:

DISPLAY LMS (start-byte:end_byte) (refer to Figure E-13)
DISPLAY LMD (start-pointer:end-pointer) (refer to Figure E-14)

Under some circumstances, it may be desirable to view the contents of the Local Message Storage (and Directory) on the "backup" machine. In order to do this, an operator has to bring up a special version of the DAPS online command interface program on a terminal currently connected to the backup computer. The easiest way to do this is from the backup computer's system console, by running the CLI procedure L_DAPS. This invokes a special version of the online command interface that is suitable to monitor only:

- a. Local Message Storage (LMS) and Local Message Directory (LMD) parameters for the backup machine:

```
DISPLAY GMLM_PARM
DISPLAY LMS ...
DISPLAY LMD ...
```

- b. Demod drawer and slot status for the backup machine:

```
DISPLAY DEMOD_SUMMARY.
```

4.1.3 Purging Message Storage Files

Under extreme circumstances, authorized DAPS personnel may wish to purge the contents of the Global or Local Message Storage files, by entering the following command(s) from the DAPS online command interface:

```
FLUSH GM ! to purge GMS / GMD
FLUSH LM ! to purge LMS / LMD
```

Since the above actions, especially the first one, have drastic consequences and affect the whole DAPS user community, their use must be strictly limited to emergency situations when the contents of the files are unrecoverable.

4.2 Platform Related Functions

This section describes online functions which are related to the monitoring and managing of Data Collection Platforms.

4.2.1 Platform Description Table (PDT)

The Platform Description Table (PDT) contains an entry for every platform supported by the DAPS system. Each PDT entry contains information about a platform's type, its schedule, its channel assignment, as well as several parameters which affect how platform related errors are handled. Appendix C contains a description all parameters in a PDT entry with access privileges. The online interface provides commands for adding, deleting, modifying and viewing a PDT entry.

4.2.1. Viewing a Platform Description Table (PDT) Entry

A platform entry may be viewed by using the display/print commands available for the Platform Description Table. These commands are:

```
DISPLAY PLATFORM_PARMS platform_id (refer to Figure E-23)
PRINT PLATFORM_PARMS platform_id
```

The PLATFORM_PARMS (or PDT) display provides a list of the names, along with their descriptions and current values, of the parameters which comprise a PDT entry. There is also additional information on the display, such as the last time the platform was active, the last time the PDT entry was modified and the name of the modifier.

4.2.1.1 Adding a PDT Entry

New platforms are added to the PDT through the ADD PLATFORM command. This command is restricted to use by the Manager only. The ADD PLATFORM (or ADD PDT) command specifies the name of the platform to be added followed by an argument list of parameters and their associated values. The following example illustrates the addition of platform 15800716

```
ADD PLATFORM 15800716      &
OWNER_ID = COLBIA         &
PRIME_TYPE = S             &
PRIME_CHAN = 91           &
PRIME_SCID = E            &
SECND_TYPE = R            &
SECND_CHAN = 127          &
SECND_SCID = E            &
FIRST_XMT = 013500        &
XMT_PERIOD = 040000       &
XMT_WINDOW = 0100        &
XMT_RATE = 100            &
MAX_RETRIES = 0           &
DATA_FORMAT = A           &
NMC_FLAG = N              &
ASSIGN_DATE = 19890424 &
END
```

Certain parameters are required when creating a new PDT entry. These are noted in Appendix C, Platform Description Table Parameters. In addition, the following validations are made on specific parameters before the entry will be accepted:

OWNER_ID - must have a corresponding entry in the User Description Table (UDT).

PRIME_TYPE/SECND_TYPE - only valid primary/secondary combinations when SECND_TYPE is not null are S/I or S/R.

PRIME_CHAN/PRIME_SCID - must have a corresponding entry in the Channel Description Table (CDT). The channel and platform types must match.

SECND_CHAN/SECND_SCID - required if S/I or S/R type platform. Must have a corresponding entry in the Channel Description Table (CDT). The channel and platform types must match.

SECND_ADDR - must be specified for S/I type platforms and for special (S) or test (T) triggered platforms (e.g. TRIGGER_MODE = S or T)

TRIGGER_MODE - if not null, PRIME_TYPE must be R and SECND_ADDR (trigger id or DCP address) must be specified.

FIRST_XMT - required when PRIME_TYPE is S, I or D. Subject to verification against existing schedule.

XMT_WINDOW - required when PRIME_TYPE is S, I or D. Must be less than XMT_PERIOD.

XMT_PERIOD - required when PRIME_TYPE is S, I or D. Must be greater than FIRST_XMT and a sub-multiple of 1 day (86400 sec.).

MANUFACTR_ID/MODEL_NO - must have a corresponding entry in the Radio Description Table (RDT) if entered. See Section 4.2.7.

NMC_FLAG - if Y, NMC_DESCRIPTOR must be specified.

4.2.1.3 Deleting a PDT Entry

Deletion of a PDT entry is accomplished through the DELETE PLATFORM (or DELETE PDT) command. Use of this command is restricted to the Manager. For example, the command:

```
DELETE PLATFORM 15800716
```

will delete the PDT entry for platform 15800716.

In general, platform deletions should only be performed only when absolutely necessary because a platform deletion results in the deletion of the platform from all user network lists. In addition, all previously collected data from the platform and accumulated statistics for the platform will become unavailable upon deletion of the platform.

4.2.1.4 Updating a PDT Entry

A PDT entry may be modified by manager, operator or user by means of the UPDATE PLATFORM command. Note that modification of individual parameters is restricted as noted in Appendix C, Platform Description Table (PDT) Parameters. Modification of the entry is performed in the same manner as an addition (i.e.; through an argument list of parameters to be modified and their associated values). For example, the command:

```
UPDATE PDT 15800716 ERR_FREQ = 5 END
```

is used to change the number of consecutive errors before reporting an error for platform 15800716 to 5.

4.2.2. Interrogating a Platform

DAPS allows the interrogation of any valid platform in the PDT that has interrogation capability. These interrogations may be:

a. Manual:

These are initiated from the online command interface, via the INTERROGATE command. Only the operator and the user owning the platform are authorized to issue manual interrogations. Any platform with an I- type primary or secondary channel may be interrogated. The interrogation is queued for immediate action:

INTERROGATE platform_id [retry]

where "retry" is the optional retry count in case of an error. The default value for [retry] is the value specified in the MAX_RETRIES parameter of PDT entry for the platform.

b. Scheduled:

These interrogations are scheduled by the DAPS software on minute boundaries, for all I- type platforms which are due for an interrogation within the next minute. The interrogation schedule is determined entirely by the information contained within the PDT for each platform. Only active platforms are scheduled for interrogation. The parameters controlling the interrogation schedule can be viewed from the online command interface and updated appropriately by the DAPS manager:

DISPLAY PDT platform_id

```
UPDATE PDT platform_id      &
      FIRST_XMT = t1        &
      XMT_WINDOW = t2       &
      XMT_PERIOD = t3       END
```

where:

t1 is the time of the first interrogation (HHMMSS)
t2 is the window for the interrogation (MMSS)
t3 is the period between interrogations (HHMMSS)

Although DAPS will automatically validate a platform's interrogation schedule, for possible conflicts with other platforms on the channel, it is always a good idea to consult the channel's schedule beforehand:

DISPLAY CHANNEL_SCHEDULE channel_id t4 t5

where t4 (start time) and t5 (stop time) delimit the time range to be investigated.

c. Automatic:

When an expected message is not received on the S- channel of an S-I platform, an interrogation is queued automatically for the same platform address, on the secondary I- channel, at the next minute boundary. This will happen automatically, as long as the platform is considered active (i.e., as long as a scheduled message or a reply is received from the platform, at least once during a 48-hour period).

d. Special and Test Triggered DCPs:

These interrogations are "triggered" as a result of a message received from an R- type platform with "trigger" capability, i.e., a platform with a PDT entry which has TRIGGER_MODE set to "S" (special) or "T" (test). In such instances, the secondary address (SECND_ADDR) is automatically interrogated, simultaneously on both East and West interrogate modulators, for the number of times specified by the MAX_RETRIES parameter. In the case of "special" triggers, the resultant interrogations are placed at the top of the interrogate queues, instead of the customary bottom of the queue. No replies are expected as a result of triggered interrogations. The S or T trigger DCP interrogated addresses are not required to be valid addresses in the PDT.

No interrogation can be performed, if:

a. The interrogate modulator (East or West) associated with the platform has been disabled

functionally.

- b. The interrogate modulator queue (East or West) associated with the platform is full.

In all cases except for triggered interrogations, the MAX_RETRIES from the platform's PDT record is used as the default for retry count, to be used in case of errors. For manual interrogations, the operator (or user) can specify this parameter explicitly. It can not exceed however the system threshold specified by IM_MAX_RETRIES (currently set to 3). The retry count is used by DAPS to reinterrogate the platform, if:

- a. If no reply is received within the interrogation window: A "Missing interrogation reply" error (type "M") will be generated at the next minute boundary.
- b. If the DCP address of the reply is garbled:

The reply will be stored in the garbled "Junk" queue (BBBBBBBB), and a "Bad DCP address (not correctable)" (type "B") will be generated. Also a "Missing interrogation reply" error (type "M") will be generated at the next minute boundary following the expiration of interrogate window.

- c. If the reply has an error associated with it (other than "PDT record is not complete" (type "N")): The appropriate error message will be generated, and the DCP will be reinterrogated.

4.2.3 Commanding a Platform

The operator can command any platform that has interrogation capability, i.e., has either a primary or secondary I- type channel defined in its PDT entry, by invoking the COMMAND command from the DAPS online interface:

```
COMMAND platform_id cmd_word
```

The command word is an integer between 1 and 4096.

No manual commanding can be performed if:

- a. The interrogate modulator (East or West) associated with the platform has been disabled functionally.
- b. The interrogate modulator queue (East or West) associated with the platform is full.

4.2.4 Masking Errors for a Platform

Under certain circumstances, it may be desirable to mask the event messages generated as a result of consecutive platform failures. This masking applies to the messages recorded in the event log, and not to the error messages stored in and disseminated from the Global Message Storage (which are not maskable).

The operator has the ability to modify the error reporting frequency, for each platform, by using the UPDATE PDT command. The syntax of the command is as follows:

```
UPDATE PDT platform_id ERR_FREQ = error_frequency END
```

where the error frequency has to be zero or a positive integer number. It specifies the number of

consecutive errors for the designated platform before an entry is made into the DAPS event log. If a given platform message exhibits more than one error (e.g., parity error, scheduling error, etc.), each one of the errors is counted separately.

An error frequency equal to zero effectively masks out all platform specific failures from the event log.

4.2.5 Viewing PDT Changes

The `DISPLAY PLATFORM_CHANGES` command is provided to display all DAPS log entries pertaining to PDT additions, deletions and modifications.

4.2.6 Viewing Platform Summary Statistics

The `DISPLAY PLATFORM_SUMMARY` command may be used to display a summary of activity for all platforms owned by a specified user (refer to Figure E-24). The statistics are available for the previous month. To request the display enter:

```
DISPLAY PLATFORM_SUMMARY user_id
```

where `user_id` is a valid user defined in the UDT.

This report is also available with additional options through the offline report utility, `DCP_REPORT`.

4.2.7 Radio Description Table (RDT)

Entries for all Data Collection Platform Radio Sets (DCPRS) currently used by platforms in the DCS system are available in the Radio Description Table (RDT). The online interface provides a command to display/print contents of the RDT. Additions, deletions and modifications to the RDT are an offline function (see Section 5.3).

4.2.7.1 Viewing Radio Description Table Entries

The operator/manager may view an entry for a specific DCPRS or a summary of all DCPRS currently in the Radio Description Table (RDT) through use of the `DISPLAY RADIO_DESCRIPTION` command. The command, when entered without arguments specifying a particular DCPRS, generates a summary display of all DCPRS. Example:

```
DISPLAY RADIO_DESCRIPTION    (refer to Figure E-28)
```

The command may also be entered with optional arguments specifying a particular DCPRS by manufacturer and model number (be sure to use quotes if the manufacturer or model number contains embedded spaces). Example:

```
DISPLAY RDT HANDAR 520A
```

The display generated contains more specific information on the specified DCPRS.

4.3 Channel Related Functions:

This section describes the online functions which are channel related.

4.3.1 Channel Description Table (CDT)

The Channel Description Table (CDT) contains an entry for every channel supported by the DAPS system. The CDT entry describes the channel characteristics such as type and data rate as well as certain parameters which affect data handling, testing and error reporting. Appendix C contains a description of all parameters in a CDT entry with access privileges. The online interface provides commands for adding, deleting, modifying and viewing a CDT entry.

4.3.1.1 Viewing a Channel Description Table (CDT) Entry

A channel entry may viewed by using the display/print commands available for the Channel Description Table. These commands are:

```
DISPLAY CHANNEL_PARMS channel_id (refer to Figure E-25)
PRINT CHANNEL_PARMS channel_id
```

where channel_id designates the DCS channel and GOES spacecraft (ex. 123E).

The CHANNEL_PARMS (or CDT) display provides a list of the names, along with their descriptions and current values, of the parameters which comprise a CDT entry. There is also additional information on the display, such as the last time the CDT entry was modified and the name of the modifier.

4.3.1.2 Adding a CDT Entry

New channels are added to the CDT through the ADD CHANNEL command. The ADD CHANNEL (or ADD CDT) command specifies the channel_id (channel_number and GOES spacecraft assigned) of the channel to be added followed by an argument list of parameters and their associated values. The following example illustrates the addition of channel 3E:

```
ADD CDT 3E          &
CHAN_TYPE = S      &
DATA_RATE = 100    &
AUTO_TEST = N      &
ERR_FREQ = 3       &
CAL_OPTION = D     &
BLK_ENABLED = N    &
END
```

Certain parameters are required when creating a new CDT entry. These are noted in Appendix C, Channel Description Table Parameters.

4.3.1.3 Deleting a CDT Entry

Deletion of a CDT entry is accomplished through the DELETE CHANNEL (or DELETE CDT) command. For example, the command:

```
DELETE CHANNEL 3E
```

will delete the CDT entry for channel 3E. If platforms are still assigned to this channel the operator/manager will be prompted for confirmation of the command. Additionally, the DELETE CHANNEL command results in the automatic deassignment of the channel from a demodulator slot (if the channel has been

assigned to a slot).

4.3.1.4 Updating a CDT Entry

A CDT entry may be modified by the manager or operator by means of the UPDATE CHANNEL (or CDT) command. Modification of the entry is performed in the same manner as an addition (i.e.; through an argument list of parameters to be modified and their associated values). For example, the command:

```
UPDATE CDT 3E ERR_FREQ = 5 END
```

is used to change the number of consecutive errors before reporting an error for platform 15800716 to 5.

Note that the following restrictions apply to CDT modifications:

- a. If platforms are assigned to a channel, the parameters, CHAN_TYPE and DATA_RATE may not be changed.
- b. If the channel is assigned to a demodulator slot which is enabled DATA_RATE must be consistent with the data rate assigned to the demodulator drawer.

4.3.2 Masking Errors for a Channel

Under certain circumstances, it may be desirable to mask the event messages generated as a result of consecutive DCP failures on a channel. This masking applies to the messages recorded in the event log, and not to the error messages stored in and disseminated from the Global Message Storage (which are not maskable).

The operator has the ability to modify the error reporting frequency, for each channel, by using the UPDATE CDT command. The syntax of the command is as follows:

```
UPDATE CDT channel_id ERR_FREQ = error_frequency END
```

where the error frequency has to be zero or a positive integer number. It specifies the number of consecutive errors for the designated channel before an entry is made into the DAPS event log. If a single message exhibits more than one error (e.g., parity error, scheduling error, etc.), each one of the errors is counted separately.

An error frequency equal to zero effectively masks out all DCP failures for that channel from the event log.

4.3.3 Testing a Channel

To test a channel, an operator can initiate a manual test transmission from the online interface, for the specified channel, by invoking the TEST CHANNEL command:

```
TEST CHANNEL channel_id tt_id      &  
                        [retry_count] &  
                        [test_message] &  
                        [preamble]
```

where:

tt_id:

Designates the test_transmitter to be used.

retry_count:

Indicates the number of times the test will be retried in case of error. The default value is supplied by the MAX_TEST field of the corresponding CDT entry.

test_message:

Optional text of the test message, up to 70 characters long, enclosed within quotes in case of embedded blanks. The default test message is specified by TT_AUTO_TEXT for the "new" test transmitter. It is hard-coded for the "old" transmitter.

preamble:

Optional field specifying the type of preamble to be used: L for long preamble, S for short preamble

A channel can also be tested automatically, on a periodical basis, by enabling the automatic test-transmission option for that channel (refer to Section 4.3.4).

The DAPS online system makes sure the specified test transmitter is logically enabled before initiating a manual or automatic test transmission. If so, the test request is queued for immediate transmission, unless:

- a. The test transmission queue is full, in which case the request is rejected immediately for a manual test; retried at a later time for an automatic test;
- b. A message is currently being ingested on the specified channel, in which case the request is retried at a later time;
- c. There is a scheduled activity on the channel (scheduled S- or D- type message, a pending interrogation or another test transmission), in which case the request is retried at a later time.

When the resulting test transmission is received by DAPS, it is archived but not disseminated. It also goes through the following validations:

- a. Address validations: If a garbled address can be corrected, it will be marked as corrected (type "A"); otherwise the message will be marked as garbled (type "B") and placed in the junk queue (BBBBBBBB). In the latter case, the test transmission will also be marked as missing (type "M").
- b. Quality Measurement validations: A test transmission is marked as of poor quality (type "Q"), if the signal strength is not within the acceptable range (CH_MIN_SIGNAL to CH_MAX_SIGNAL, inclusive); if the frequency offset is not within the acceptable range (CH_MIN_FREQOFF to CH_MAX_FREQOFF, inclusive); if modulation index is not normal ("N"); or if the quality indicator is poor ("P").
- c. Data validations: A "data compare error" (type "C") will be generated if the received text of the message does not match the expected text of the original test string, or if there is a data parity error.

In all cases where an error is detected, the test will be retried, at the first opportune moment on the channel, up to the maximum number of retries specified (or implied).

Refer to Section 4.6 for a description of other test transmitter specific activities.

4.3.4 Enabling / Disabling Automatic Test Transmissions for Channels

The operator, or manager, can enable automatic test- transmissions for any channel, by using the UPDATE CDT command:

```
UPDATE CDT channel_id AUTO_TEST=Y END
```

The specified channel will be automatically tested, at the nominal rate of every two hours, provided the channel or the test-transmitter is not busy. To modify the nominal auto-test period, the operator or manager, can enter:

```
UPDATE CH_TEST_PERIOD period
```

where "period" specifies the minimum number of seconds that have to elapse since the last automatic or manual test, before another automatic test transmission is attempted.

If more than one test transmitter is available in the system, DAPS allows the operator or manager to specify, on a channel basis, the test-transmitter that will be used for auto-tests on that channel:

```
UPDATE CDT channel_id AUTO_TTID= tt_id END
```

The automatic test-transmissions, very much like manual test- transmissions, will be queued for immediate action, unless:

- a. The designated test-transmitter is logically disabled, in which case no auto-tests are performed;
- b. The test-transmission queue is full, or there is other scheduled activity on the channel, in which case the test is delayed and retried automatically at a later time.

Messages received as a result of an automatic test-transmission are archived for viewing, and validated the same way manual test transmissions are. In case of error(s), the channel is retested automatically, up to the default retry limit, which can be set individually for each channel, as follows:

```
UPDATE CDT channel_id MAX_TESTS = retry_limit END
```

The operator/manager can also specify the type of preamble (long or short), and the text of the message (up to 70 characters) to be used during the auto-tests, for each test transmitter (refer to Section 4.6).

Automatic test-transmissions can be disabled on a channel, by invoking the UPDATE CDT command:

```
UPDATE CDT channel_id AUTO_TEST= N END
```

4.3.5 Enabling / Disabling Auto-calibration

One of the important by-products of channel testing, besides monitoring the status of the channel, is to compute, on a channel by channel basis, the delta bias (i.e., difference) between the nominal signal strength and the measured signal strength of the test message:

Delta : $CH_NOM_SIGNAL - Test_Signal_Strength$

This delta value is saved automatically for each channel, every time a test transmission is considered to be successful (refer to Section 4.6). The delta values are available for viewing, by the operator or manager, via the online command interface:

```
DISPLAY CH_AUTO_BIAS (channel_number,scid)
```

where scid = 1 for East and 2 for West.

```
Example: DISPLAY CH_AUTO_BIAS (24,2)
         PRINT  CH_AUTO_BIAS (1:39,1:2)
```

More importantly, the operator or manager can direct the DAPS system to automatically adjust the signal strengths of all messages received on a given channel, by selecting the auto- calibrate mode for that channel:

```
UPDATE CDT channel_id CAL_OPTION = A END
```

in which case, the signal strength of any message received on that channel will be algebraically adjusted by the latest CH_AUTO_BIAS value saved for the corresponding channel.

Example:

```
Nominal signal strength : 40
i.e., CH_NOM_SIGNAL =    40
Signal strength for test message on channel 123E :    42
Measured bias for channel 123E :    40 - 42 = -2
i.e., CH_AUTO_BIAS (123,1) =    -2

Signal strength of a DCP message before calibration :    46
Signal strength of DCP message after calibration:    46 + (-2) = 44
```

To disable the auto-calibration option on a given channel, the operator or manager has to enter the following:

```
UPDATE CDT channel_id CAL_OPTION= D END
```

4.3.6 Enabling / Disabling Manual Calibration

The signal strengths of DCP messages received on a channel can also be "manually calibrated", if the manual calibration is specified for that channel:

```
UPDATE CDT channel_id CAL_OPTION= M END
```

in which case, the signal strength of any DCP message received on that channel is algebraically adjusted by the signed value of the MANUAL_BIAS in effect for that channel. The MANUAL_BIAS value can be viewed and modified by the operator, or manager, by using the DISPLAY/PRINT and UPDATE commands respectively.

Example:

```
Signal strength of DCP message before calibration: 45
MANUAL_BIAS for channel: -4
Signal strength of DCP message after calibration:
45 + (-4) = 41
```

DAPS personnel may wish to observe the auto-calibration values for a channel over a period of time, before selecting a MANUAL_BIAS value.

To disable the manual-calibration option on a given channel, the operator or manager has to enter the following:

```
UPDATE CDT channel_id CAL_OPTION= D END
```

4.3.7 Enabling / Disabling Channel Blocking

The DAPS operator and manager have the ability to "block" transmissions on a selected channel, by scheduling a test- transmission on that channel. This capability can be used only in conjunction with the "new" test-transmitter. **To enable channel blocking, the following steps have to be followed:**

- a. The "new" test transmitter has to be logically enabled;
- b. The schedule for channel blocking has to be specified via the online command interface:

```
UPDATE CDT channel_id FIRST_BLK= time1    &  
                BLK_WINDOW = time2        &  
                BLK_PERIOD = time3    END
```

where:

time1 is the time of the first block on the channel

time2 is the duration of the block

time3 is the time between blocks

All time fields are in HHMMSS format

- c. The blocking should be explicitly enabled for that channel:

```
UPDATE CDT channel_id BLK_ENABLED= Y END
```

It is worth mentioning that while the block is in effect on a channel:

- a. Incoming data on that channel will be garbled;
- b. The test transmitter selected for the block will be unavailable for any automatic or manual test transmissions;
- c. No interrogations will be initiated for platforms on that channel;
- d. No automatic or manual test transmissions will be initiated on that channel.

To disable the channel blocking option on a given channel, the operator or manager has to enter the following:

```
UPDATE CDT channel_id BLK_ENABLED= N END
```

DAPS personnel may wish to have more than one channel scheduled for blocking, by using the procedure described above. However, care should be exercised to avoid conflicts in scheduling the same test-transmitter for simultaneous "blocking" operations on multiple channels, since there is no built-in safeguard against such misuse.

4.3.8 Viewing Daily Channel Statistics

The DISPLAY CHANNEL_STATS command provides a display of daily statistics for the specified channel (refer to Figure E-33).

4.3.9 Viewing the Channel Summary

The `DISPLAY CHANNEL_SUMMARY` command provides a summary of channel assignments to demodulator drawers/slots (refer to Figure E-34).

4.3.10 Viewing Channel Schedules

The `DISPLAY CHANNEL_SCHEDULE` command provides a schedule of usage for the specified time range of the specified channel (refer to Figure E-35).

4.4 DAMS Demodulator Related Functions:

This section describes the real-time operational functions which are related to the DAMS demodulator drawers or demodulator slots (channels):

4.4.1 Monitoring Demod_Drawer and Slot Activities

The operator, or manager, can view the current demod drawer and slot assignments, by invoking the `DEMOM_SUMMARY` display from the online command interface:

```
DISPLAY DEMOD_SUMMARY or  
PRINT DEMOD_SUMMARY
```

This is a multi-page, dynamically refreshed display (refer to Figure E-15) that can be tailored easily for the number of physical demod drawers currently implemented in the system (since it is table-driven). The display is organized by demod drawer, columnwise, and by demod slot, rowwise.

For each demod drawer, one can determine its enable/disable status, baud-rate, the spacecraft it is assigned to (east or west), and the error-masking status (refer to Section 4.4.2).

For each demod slot, one can determine its enable/disable status, and the channel number that the slot is assigned to. In addition, an asterisk ("*") will appear next to any demod slot on which data ingest is in progress.

4.4.2 Changing Demod Drawer Attributes:

The operator can modify the attributes of any demod drawer from the online command interface. The DAPS system has room for up to 48 demod drawers, to accommodate existing 100-baud DAMS units, as well as the future 300 and 1200-baud demods. To update the attributes of a demod drawer, one should :

- a. Display the attributes of the desired demod-drawer first:

```
DISPLAY DEMOD_DRAWER drawer
```

where drawer is the ID of the demod_drawer (1-48) (Refer to Figure E-16).

- b. Update the desired attributes:

```
UPDATE DEMOD_DRAWER drawer parameter=value ... END
```

by entering the appropriate keyword for the attribute, followed by its value.

The operator, or manager, can:

- a. Enable or disable any demod drawer (1-48):

```
UPDATE DEMOD_DRAWER id ENABLED = Y END ! Enable
UPDATE DEMOD_DRAWER id ENABLED = N END ! Disable
```

Data ingested on any slot (channel) of a "disabled" demod_drawer will be rejected (not archived in the Global Message Storage).

- b. Enable or disable error masking for a demod drawer:

```
UPDATE DEMOD_DRAWER id ERR_MASK= Y END ! Enable
UPDATE DEMOD_DRAWER id ERR_MASK= N END ! Disable
```

No error logging is performed for DCP messages received on a demod drawer for which errors are masked (ERR_MASK = Y). Note that this affects only the DAPS event log, i.e., validation errors would still be archived and disseminated to users.

- c. Change the spacecraft assignment (E or W):

```
UPDATE DEMOD_DRAWER id SCID= E END ! for East
```

The spacecraft ID can not be changed if there is a channel already assigned to this demod_drawer. The operator must disable all demod_slots on this drawer if the spacecraft ID assignment is to be modified.

- d. Change the baud-rate (100/300/1200):

```
UPDATE DEMOD_DRAWER id DATA_RATE= rate END
```

The baud_rate of a drawer can not be changed if there is a channel already assigned to this demod_drawer. The operator must disable all demod_slots on this drawer if the baud-rate is to be modified.

- e. Change the number of slots (channels) on a demod (1-10):

The number of demod slots on a given demod drawer is a function of the demod type, and should not be modified operationally.

4.4.3 Changing Demod Slot Assignments

The operator can modify the channel assignment of any demod slot from the online command interface. The old DAMS units can have up to 10 demod slots assigned, whereas the new 300- and 1200- baud demods can have at most one slot (channel) defined.

Before assigning a demod_slot to a channel, its best to view its current status by using:

```
DISPLAY DEMOD_SUMMARY    or
DISPLAY DEMOD_SLOT drawer# slot# - (Refer to Figure E-17)
```

Remember that:

- a. Unassigned demod_slot will appear disabled (ENABLED= N).
- b. Data ingest on unassigned demod slots will be ignored (i.e., no archiving or dissemination).
- c. Only one demod_slot can be assigned to a given channel and still be fully enabled (ENABLED= Y). Any additional demod slot(s) assigned to the same channel (and spacecraft) has to be enabled in "test" mode (ENABLED= T).
- d. Data ingested on demod slots in "test" mode will be archived for viewing purposes, but will not be validated or disseminated.

The operator, or manager, has the following choices at this point:

- a. Assign an unassigned demod_slot to an unused channel:

```
UPDATE DEMOD_SLOT drawer slot    &
ENABLED= Y                      &
CHANNEL= number    END
```

- b. Assign an unassigned demod_slot to a used channel (for testing only):

```
UPDATE DEMOD_SLOT drawer slot    &
ENABLED= T                      &
CHANNEL= number    END
```

- c. Deassign a demod_slot:

```
UPDATE DEMOD_SLOT drawer slot    &
ENABLED= N                      END
```

- d. Reassign a used demod to a new (unused) channel:

```
UPDATE DEMOD_SLOT drawer slot    &
ENABLED= N                      &
UPDATE DEMOD_SLOT drawer slot    &
ENABLED= Y                      &
CHANNEL= number    END
```

Note: Any time a demod slot is assigned / reassigned to a new channel, the demod hardware needs to be properly set (via the thumb wheel switches) to the desired DCS channel.

4.4.4 Viewing Data Ingested in Test Mode:

As explained in the previous section, it is possible to receive platform data for the same channel on multiple demod slot(s), provided:

- a. At most one demod_slot is fully enabled (ENABLED= Y).
- b. All other demod_slots assigned to the same channel are enabled only for testing (ENABLED= T)

Data ingested on either type of demod_slot is archived. However, "test" data is neither validated nor disseminated. When archiving data received from the test demod_slot(s), DAPS uses the pseudo- DCP address "77777777". It is therefore possible to view these messages from the online command interface, by invoking the DISPLAY MSG or DISPLAY CHANNEL_ACTIVITY commands.

Examples:

```
DISPLAY MSG CHANNEL_ID= channel_id [since] [until]
```

This will display all messages received on the channel; messages received on a test demod slot will have a DCP address of "77777777"

```
DISPLAY MSG PLATFORM_ID=77777777 [since] [until]
```

This will display only messages received from demod slot(s) in "test" mode, regardless of the channel they were received on.

4.5 Interrogate Modulator Related Functions:

This section describes the real-time operational functions which are related to interrogate modulators:

4.5.1 Monitoring Interrogate Modulators

The DAPS operator can monitor the two interrogate modulators, and related activities, through the online interface:

a. Monitoring the enable / disable status:

The enable / disable status of interrogate modulators are displayed on the top line of any DAPS display page. The words IME and IMW will appear in reverse video if and only if the corresponding interrogate modulator functions have been logically disabled. Refer to Section 4.5.2 for more on this subject.

b. Monitoring the status of interrogate modulator queues:

The interrogate modulator queues can be monitored from the online command interface, by invoking:

```
DISPLAY QUEUE IME    ! For East queues
DISPLAY QUEUE IMW    ! For West queues
```

These commands will generate static displays (refer to Figure E-3) showing the current contents of the corresponding queues: Those awaiting for an interrogation ("Wait" queue), as well as those awaiting a reply ("Done" queue). Each queue entry will display information about the DCP address to be interrogated, the start time of the interrogation, the channel, the number of retries remaining, and finally, the type of interrogation:

- Scheduled interrogation
- Manual interrogation
- Automatic interrogation (Timeout on S-channel)
- Manual command
- Special trigger
- Test trigger

c. Monitoring interrogation replies:

Replies received as a result of manual, scheduled or automatic interrogation (or command) are validated and stored in the Global Message Storage for viewing and dissemination, like regular

platform messages. They are not recorded in the DAPS Event Log. Nor are they automatically reported on the operator console. They have to be queried, like all other messages, via the online command interface, using the DISPLAY MSG or DISPLAY CHANNEL_ACTIVITY commands.

- d. Monitoring DAPS alarms and viewing the event log for interrogation related activities:

The DAPS event log can be displayed / printed to review past manual interrogations or commands sent to platforms; special or test emergency triggers received from platforms and the resultant interrogations; the Interrogate Modulator queue full conditions; front-end (ISC) failures, etc. Any of these conditions can be made into alarms, at the discretion of DAPS personnel, for immediate acknowledgment.

4.5.2 Enabling/Disabling Interrogate Modulator Functions

Manual, scheduled, or automatic interrogation functions will not be performed if the corresponding Interrogate Modulator is functionally disabled by DAPS personnel:

```
UPDATE IME_ENABLED (1)  N  ! Disables IM-E
UPDATE IMW_ENABLED (2)  N  ! Disables IM-W
```

Conversely:

```
UPDATE IME_ENABLED (1)  Y  ! Enables IM-E
UPDATE IMW_ENABLED (2)  Y  ! Enables IM-W
```

The enable / disable status of the interrogate modulators can be monitored from the top line of the DAPS CRT page (Refer to the previous section).

4.5.3 Flushing Interrogate Modulator Queues

Under certain conditions, the operator may wish to flush (delete) the contents of either or both interrogate modulator queues, such as after a prolonged period of inactivity due to hardware or system failure. The East and West modulator queues can be flushed separately, by invoking the FLUSH command from the online command interface:

```
FLUSH IME      ! For the East modulator
FLUSH IMW      ! For the West modulator
```

4.6 Test Transmitter Related Functions

This section describes the online functions which are related to test transmitters. The detailed procedures for initiating manual or automatic test transmissions on a given channel have been previously discussed in Sections 4.3.3 and 4.3.4 respectively.

4.6.1 Monitoring Test Transmitter Activity

The DAPS operator can monitor the two test transmitters, and related activities, through the online interface:

a. Monitoring the enable / disable status:

The enable / disable status of test transmitters are displayed on the top line of any DAPS display page. The words TT1 and TT2 will appear in reverse video if and only if the corresponding test transmitter functions have been logically disabled. TT1 is currently configured to be the "old" test transmitter; and TT2 to be the "new" test transmitter. Refer to Section 3.4.4 for more on this subject.

b. Viewing the test transmission summary:

DAPS personnel can view the most recent test transmission results, by invoking the dynamically refreshed TEST_SUMMARY display (refer to Figure E-32):

DISPLAY TEST_SUMMARY

which tabulates, for each channel:

- the time of the last manual or automatic test
- the status of the test:

P: Passed

F: Failed (validation errors)

M: Missing message (or garbled address)

c. Monitoring the status of test transmitter queues:

The test transmitter queues can be monitored from the online command interface, by invoking:

DISPLAY QUEUE TT1 ! For Test Transmitter #1

DISPLAY QUEUE TT2 ! For Test Transmitter #2

These commands will generate static displays (refer to Figure E-4) showing the current contents of the corresponding queues: Those awaiting for the test transmission to be initiated ("Wait" queue), as well as those awaiting a reply ("Done" queue). Each queue entry will display information about the channel to be tested, the start time of the test, the number of retries remaining, and finally, the type of test:

- Manual test transmission
- Automatic test transmission

d. Monitoring test transmission messages:

Messages received as a result of manual or automatic test transmissions are validated and stored in the Global Message Storage for viewing, but not for dissemination. They are not recorded in the DAPS Event Log. Nor are they automatically reported on the operator console. They have to be queried, like all other messages, via the online command interface, using the DISPLAY MSG or DISPLAY CHANNEL_ACTIVITY commands. Either the CHANNEL_ID or the PLATFORM_ID suboptions can be used to display / print these messages. In the latter case, the PLATFORM_ID to be used is the one assigned to the test transmitter to be monitored, e.g. :

DISPLAY MSG PLATFORM_ID= 15C94F4E [since] [until]

displays messages originating for TT1, assuming "15C94F4E" is the assigned address for TT1 (Refer to Section 3.4.4).

- e. Monitoring DAPS alarms and viewing the event log for test transmission related activities:

The DAPS event log can be displayed / printed to review past manual test transmissions; the Test transmitter status code changes; various test transmitter validation errors, etc. Any of these conditions can be made into alarms, at the discretion of DAPS personnel, for immediate acknowledgment.

4.6.2 Enabling / Disabling Test Transmitter Functions

Manual or automatic test transmitter functions will not be performed if the corresponding Test Transmitter is functionally disabled by DAPS personnel:

```
UPDATE TT_ENABLED (1)  N  ! Disables TT-1
UPDATE TT_ENABLED (2)  N  ! Disables TT-2
UPDATE TT_ENABLED (1:2) N  ! Disables TT-1 and TT-2
```

Conversely:

```
UPDATE TT_ENABLED (1)  Y  ! Enables TT-1
UPDATE TT_ENABLED (2)  Y  ! Enables TT-2
UPDATE TT_ENABLED (1:2) Y  ! Enables TT-1 and TT-2
```

The enable / disable status of the test transmitters can be monitored from the top line of the DAPS CRT page (Refer to previous section).

4.6.3 Flushing Test Transmitter Queues

Under certain conditions, the operator may wish to flush (delete) the contents of either or both test transmitter queues, such as after a prolonged period of inactivity due to hardware or system failure. The TT-1 and TT-2 queues can be flushed separately, by invoking the FLUSH command from the online command interface:

```
FLUSH TT1      ! For Test Transmitter # 1
FLUSH TT2      ! For Test Transmitter # 2
```

4.7 DOMSAT Interface Related Functions

This section describes online functions related to data dissemination via DOMSAT.

All messages ingested and archived in the Global Message Storage (GMS) are automatically disseminated via DOMSAT, including:

- a. DCP (platform) messages;
- b. Error messages resulting from any validation;
- c. User mail from the operator or manager
- d. Global bulletin messages;
- e. DCP-specific bulletin messages.

The following type of messages are not transmitted via DOMSAT:

- a. Messages received from the test transmitters;
- b. Messages received on demod slots in test mode;
- c. Messages with garbled addresses;
- d. Messages with invalid addresses.

The DAPS automatically attempts to transmit all eligible messages in the Global Message Storage, in a sequential (FIFO) order, as long as the DOMSAT link is logically enabled. These include:

- a. Current messages:

These are messages that are less than 2 minutes old at the time of transmission. They have the highest priority.

- b. Backlog messages:

Any messages that are not "current" at the time of the transmission (more than 2 minutes old) automatically get saved in a "backlog" queue. Normally, a separate entry is made into the "backlog" queue for every DOMSAT outage (due to system outage, switchover or logical disabling). Each entry will contain a contiguous range of "old" messages, never transmitted before. They get disseminated via DOMSAT, also in FIFO order, provided there are no "current" messages pending.

- c. DQM messages:

The DOMSAT Quality Monitor (DQM) may report transmission errors (CRC error or sequence number error) for previously transmitted messages. A separate entry is made in the DQM queue, for each reporting of contiguous errors. Messages from the QM queue get retransmitted at the next highest priority.

- d. User retransmission requests:

Any DAPS DOMSAT user may wish to have old messages retransmitted via DOMSAT. A separate entry is made for each user request by channel or platform. A user request by network_list or list_channel results in multiple entries. Messages from user retransmission queue entries get transmitted in FIFO order, at the lowest priority.

DAPS saves the transmission time of any message disseminated via DOMSAT, for viewing purposes. This field gets updated whenever a message is retransmitted, whether due to a DQM reported failure or user retransmission request. DAPS will not retransmit any message requested by a user, if it has been already disseminated once after the request was made.

In the absence of any available messages, DAPS will transmit a "DOMSAT alive" message, once a minute, with the pseudo-DCP address of "DADADADA".

4.7.1 Monitoring DOMSAT Activities

The operator or manager can monitor DOMSAT activities via the SYSTEM_SUMMARY display (refer to Figure E-5), from the online interface:

DISPLAY SYSTEM_SUMMARY

which will indicate:

- a. The enable / disable status of the DOMSAT interface;
- b. The number of messages in the "current" queue awaiting transmission;
- c. The number of entries in the "backlog" queue awaiting transmission;
- d. The number of entries in the DQM queue awaiting retransmission;
- e. The number of entries in the user request queue awaiting retransmission.
- f. The total number of messages already transmitted for the day;
- g. The number of messages transmitted for the day from the backlog queue;
- h. The number of messages transmitted for the day from the DQM (failure) queue;
- i. The number of messages transmitted for the day from the user retransmit queue;
- j. The time of the last message transmitted.

The operator can look into the contents of the various DOMSAT queues, by invoking the `DISPLAY QUEUE` command:

a. `DISPLAY QUEUE BACKLOG:`

Displays the contents of the backlog queue, one line per entry, indicating the time and GMD pointers for the first and last messages to be transmitted for each entry (refer to Figure E-6).

b. `DISPLAY QUEUE QM:`

Displays the contents of the DQM (failure) queue, one line per entry, indicating the GMD pointers for the first and last messages to be retransmitted for each entry (refer to Figure E-8).

c. `DISPLAY QUEUE USER`

Displays the contents of the user retransmit request queue, one line per entry, indicating the time of the request and the user ID for each entry (refer to Figure E-8).

4.7.7 Enabling / Disabling the DOMSAT Interface

The operator can logically enable DOMSAT dissemination functions from the online interface by entering:

`UPDATE DO_ENABLED Y`

Conversely, to disable DOMSAT, enter:

`UPDATE DO_ENABLED N`

The enable / disable status of DOMSAT can be monitored via the `SYSTEM_SUMMARY` display:

`DISPLAY SYSTEM_SUMMARY`

4.7.3 Flushing DOMSAT Queues

Under certain conditions, the operator may wish to flush (delete) the contents of selected DOMSAT queues, such as after a prolonged period of inactivity due to hardware or system failure:

| | |
|----------------------------|------------------------------------|
| <code>FLUSH BACKLOG</code> | ! Flushes the DOMSAT backlog queue |
| <code>FLUSH QM</code> | ! Flushes the DQM (failure) queue |
| <code>FLUSH USER</code> | ! Flushes the user request queue |

4.7.4 Retransmitting Messages via DOMSAT

A DAPS operator can initiate the retransmission of old messages via DOMSAT for a given time range by invoking the RETRANSMIT command from the online interface.

- a. For the retransmission of all DCP messages use:

```
RETRANSMIT MESSAGE_FILE ALL [since] [until]
```

- b. For the retransmission of messages from a specific platform use:

```
RETRANSMIT MESSAGE_FILE PLATFORM_ID platform_id &
[since] [until]
```

- c. For the retransmission of messages received on a specific channel use:

```
RETRANSMIT MESSAGE_FILE CHANNEL_ID channel_id &
[since] [until]
```

- d. For the retransmission of messages from a specific user's network list use:

```
RETRANSMIT MESSAGE_FILE LIST_ID user_id list_id &
[since] [until]
```

- e. For the retransmission of messages from a specific user's network list and for a specific channel use:

```
RETRANSMIT MESSAGE_FILE LIST_CHANNEL      &
user_id list_id                          &
channel_id                                &
[since] [until]
```

As a result of the RETRANSMIT request, either a single or multiple entries will be made into the user retransmit (request) queue, specifying the message selection criteria.

4.7.5 Testing the DOMSAT Link

The DAPS operator can test the DOMSAT uplink and downlink, using either the DROT or the DQM, by invoking the TEST DOMSAT command from the online interface:

```
TEST DOMSAT count
```

This causes the specified number of "canned" test messages to be disseminated via DOMSAT, with a pseudo-DCP address of "DDDDDDDD". These test messages will take precedence over any existing DOMSAT queue entries, i.e., no real messages will be disseminated until all test messages are transmitted.

4.7.6 Monitoring the Domsat Quality Monitor (DQM) Interface

The DOMSAT Quality Monitor (DQM) transmits a periodic message to DAPS via an RS232 link, reporting the DOMSAT sequence number of the last message (0-65535) it received. It also reports immediately any CRC or sequence number errors. DAPS personnel can monitor the DQM specific information, by invoking the SYSTEM_SUMMARY display:

DISPLAY SYSTEM_SUMMARY

which will report the following:

- a. The enable / disable status of the DQM interface;
- b. The DOMSAT sequence number of the last message seen and reported by the DOMSAT Quality Monitor;
- c. The number of CRC errors detected and reported by DQM for the current day;
- d. The number of sequence number errors detected and reported by DQM for the current day.

The operator or manager can also review the DAPS log for DQM specific error messages indicating:

- a. Timeout on the Quality Monitor Link;
- b. Missing DQM periodic message;
- c. CRC or message sequence number error.

4.7.7 Enabling / Disabling the DQM Interface Functions

The DAPS software which processes the periodic or asynchronous messages sent by the DOMSAT Quality Monitor (DQM) can be disabled by the DAPS operator, by entering the following command from the online interface:

UPDATE QM_ENABLED N

especially, if the DQM or the interface will be down for an extended period of time. This will prevent the unnecessary timeout messages which will otherwise appear in the event log.

To reenable the DQM interface, enter:

UPDATE QM_ENABLED Y

4.7.8 Changing the Default DQM Device

The DROT PC in the operations work area is the designated backup for the DOMSAT Quality Monitor (DQM) operating in the DAPS Computer rack area. To change the default DQM device, the operator has to:

- a. Stop the DROT software on the DROT PC;
- b. Start the DQM software on the DROT PC;
- c. Reconfigure the DQM interface to be used by DAPS, by entering the following from the DAPS online command interface:

UPDATE QM_DEVICE N

To go back to the old (normal) configuration, the operator should:

- a. Start the DQM software on the DQM PC in the racks area;
- b. Reconfigure the DQM interface to be used by DAPS, by entering the following from the DAPS online command interface:

UPDATE QM_DEVICE Y

- c. Start the DROT software on the DROT PC, if desired.

4.8 NMC (NWSTG) Interface Related Functions

This section describes functions related to DCP data dissemination to the NMC (NWSTG).

During normal operations, only selected platform messages are disseminated to the NMC (no error messages, mail, bulletins, etc.). To be disseminated to the NMC, the message must be for a valid platform address, with the following PDT record fields defined appropriately:

- a. The NMC_FLAG should be set to Y.
- b. The NMC_DESCRIPTOR should be valid (non-blank).

Messages are transmitted from the Global Message Storage, in FIFO order, provided the NMC interface is logically enabled and the X.25 link is established.

4.8.1 Monitoring NMC (NWSTG) Activities

The operator or manager can monitor NMC activities via the SYSTEM_SUMMARY display, from the online interface:

DISPLAY SYSTEM_SUMMARY

which will indicate:

- a. The enabled/disabled status of the NMC interface;
- b. The number of messages in the GMS awaiting transmission;
- c. The total number of messages already transmitted for the day;
- d. The time of the last message transmitted.

Note that the number of messages awaiting transmission is a worst case figure, since not every message in the GMS is likely to be transmitted to NMC (refer to Section 4.8).

4.8.2 Enabling / Disabling the NMC (NWSTG) Circuit

The operator can logically disable NMC dissemination functions from the online interface:

UPDATE NM_ENABLED N

Conversely, to reenable NMC the operator can enter:

UPDATE NM_ENABLED Y

NMC dissemination resumes from the point where it was interrupted.

The enabled/disabled status of NMC can be monitored via the SYSTEM_SUMMARY display:

DISPLAY SYSTEM_SUMMARY

4.8.3 Flushing the NMC (NWSTG) Message Queue

Under certain conditions, such as after a prolonged period of inactivity due to hardware or system failure, the operator may wish to flush (delete) the contents of the NMC queue, i.e., purge all pending messages waiting for NMC dissemination. This is done from the online command interface:

FLUSH NMC [time]

If the optional argument, [time], is entered, all messages before the time entered are flushed from the queue.

4.8.4 Testing the NWS (NWSTG) Link

The DAPS operator can test the NMC link, by invoking the TEST NMC command from the online command interface:

TEST NMC count

This causes the specified number of "canned" test messages to be disseminated to the NMC, with the pseudo-DCP address of "DDDDDDDD". These test messages will take precedence over any existing NMC queue entries, i.e., no real messages will be disseminated until all test messages are transmitted.

4.9 Asynch Dial-in Line Related Functions

The specifics of the Dial-in user functions are covered separately in the DAPS User Interface Manual. This section briefly touches on those aspects of Asynch dial-in line functions which need to be supported by the DAPS operations personnel.

The DAPS system supports ten Asynch dial-in lines which may be used by DCS users for message retrieval and data base modification. There are various tools available for the management of these lines.

4.9.1 Monitoring Dial-in Line Activity

The operator can monitor dial-in line specific activities for dial-in users from the online interface, by invoking the SYSTEM_SUMMARY display:

DISPLAY SYSTEM_SUMMARY

which will show:

- a. The ID of the users currently logged on to the system, and the Line (1-10) they are using;
- b. The number of messages disseminated for each user during the current session;
- c. The total number of messages disseminated on each line for the current day.

The operator can also invoke the DIALIN_SUMMARY display (refer to Figure E-9), to monitor:

- a. The number of seconds used on each line for the current day
- b. The last time the line was used.

4.9.2 Configuring Asynch Dial-in Lines

The UPDATE command can be used to configure any of the dial-in parameters. These parameters are:

LI_MAX_IDLE_SECS - the maximum number of idle seconds on a dial-in line before a timeout occurs.

LI_MAX_TIMEOUTS - the maximum number of consecutive timeouts on a line before a disconnect occurs.

LI_MAX_REQS - the maximum number of dissemination request (DOWNLOAD and RETRANSMIT) allowed to any user on a given day.

LI_MAX_MSGS - the maximum number of messages that may be disseminated for a single dissemination request (DOWNLOAD).

LI_MAX_DISPLAY_LINES - the maximum number of lines that may be generated for a user requested display.

LI_MAX_DISPLAY_DAYS - the maximum number of days (previous to the time of a request) that may be viewed using a DISPLAY MESSAGE_FILE or DOWNLOAD command.

LI_MAX_BATCH_CMDS - the maximum number of batch commands that may be executed as the result of a SUBMIT command.

The current values assigned to these parameters may be viewed on the DIALIN_PARMs display (refer to Figure E-9). These parameters may be modified through use of the UPDATE command. For example, entering

```
UPDATE LI_MAX_TIMEOUTS = 5
```

limits the number of consecutive timeouts on a line to 5.

A command file named INIT_DIALINS.CMD was initially used to configure the dial-in terminals. The contents of this file (shown in Table 4-1) can be modified, to accommodate future changes to dial-in device definitions.

```
INIT_DIALINS.CMD
```

4.9.3 Changing the Logon Message

The message text that is displayed to all users (and the operator/manager) following the Data General copyright banner at logon time is contained in a file called LOGON.MESSAGE. This file is located in the :UTIL directory and may be modified using the SED text editor. Only the first 512 characters of this file will be displayed. When modifying this file, make sure to modify the file on both DAPS systems (A and B).

4.9.4 Changing the DAPS_NEWS Display

Dialin users may be notified of modifications to the DAPS system through the DAPS_NEWS display. The display is contained in the file, DAPS_NEWS.PAG, located in the :UDD:DAPS:USER directory. This file may be modified by using the SED text editor. Be sure to update this file on both DAPS systems (A and B).

4.10 DCS User Related Functions

This section describes functions related to DCS users.

4.10.1 User Description Table (UDT)

The User Description Table (UDT) contains an entry for each user of the DAPS system (refer to Appendix C, page C-7). The online interface provides commands for displaying an existing UDT entry, modifying a UDT entry, adding a new UDT entry or deleting an existing UDT entry.

4.10.1.1 Viewing a User Entry

A user entry may viewed by using the display/print commands available for the User Description Table. These commands are:

```
DISPLAY USER_PARMS user_id
PRINT  USER_PARMS user_id
```

The USER_PARMS (or UDT) display (refer to Figure E-26) provides a list of the names, along with their descriptions and current values, of the parameters which comprise a UDT entry. There is also additional information on the display, such as the last time the user was signed onto the system, the number of dissemination requests for that date, the last date/time of dissemination for each of the user's network lists and the date of the last modification to the entry.

4.10.1.2 Adding a New User Entry

New users are added to the UDT through the ADD USER command. This command is restricted to use by the Manager only. The ADD USER command specifies the name of the user to be added followed by an argument list of parameters and their associated values. The following example illustrates the addition of user CEMRO1:

```
ADD USER CEMRO1           &
USER_TYPE = F             &
USER_NAME = "OMAHA DISTRICT" &
MOA_ID = "CORPS OF ENGINEERS (DOD)" &
OPR_NAME_LAST = SMITH     &
OPR_NAME_FIRST = "JOHN Q." &
OPR_PHONE = "(321) 987-1234" &
PRIME_MEDIUM = T          &
END
```

Certain parameters are required when creating a new UDT entry. These are noted in Appendix C, User Description Table Parameters, and are also illustrated in the example above. In addition, there must be a corresponding entry in the Memorandum of Agreement Table for the value specified for the MOA_ID parameter.

After a user entry is added to the UDT, the manager must then log off the DAPS online interface and create

an AOS/VS user account on both DAPS systems if the user is to have the capability to dial in to DAPS and log on. A CLI macro and a default user_template profile have been developed to simplify the account creations.

For example, assume a UDT entry has been made for new user 'NOAA01' and the manager is now ready to create the necessary accounts. Assume DAPS_A is primary and DAPS_B is backup:

1. - Log off DAPS_A online interface by entering 'BYE'.
2. - To exercise the CLI macro to make a user account on this system enter:

```
MAKE_USERID NOAA01
```

As the system completes this request, the following message appears:

```
.....did NOAA01
```

This means that the user now has an account created with the default user profile which includes the default password.

3. - Now there is a need to make an identical account on the backup system. Sign on the backup system via the local network and virtual terminal facility by entering:

```
CALL DAPS_B
```

Log onto DAPS_B as OPR or MGR and perform step 2 as above. Sign off DAPS_B by entering 'BYE'. When the virtual terminal prompt (a '->') appears, enter 'BYE' again and you are now back in your previous environment on DAPS_A.

4. - Accounts are now on both DAPS systems.

4.10.3 Deleting a User Entry

Deletion of a UDT entry is accomplished through the DELETE USER command. Use of this command is restricted to the Manager. This command is entered as:

```
DELETE USER user_id
```

Note that a UDT entry may not be deleted when there are entries in the Platform Description Table (PDT) which reference the UDT entry (the OWNER_ID parameter).

When deleting a user, the user's profile must also be removed from the Data General user profile tables and the user's account must be deleted. This is accomplished offline through use of the DELETE_USERID macro which is run in the same manner as the MAKE_USERID macro described under Adding a New User Entry.

4.10.4 Updating a User Entry

A UDT entry may be modified by manager, operator or user by means of the UPDATE USER command. Note that modification of individual parameters is restricted as noted in Appendix C, User Description Table (UDT) Parameters. Modification of the entry is performed in the same manner as an addition (i.e.; through an argument list of parameters to be modified and their associated values). For example, the

command:

```
UPDATE USER CEMRO1 PRIME_MEDIUM = D END
```

is used to change user CEMRO1's primary means of message dissemination from telephone to DOMSAT.

4.10.2 User Network Lists (UNLs)

Although generally users will maintain their own User Network Lists, the capability has been provided for the operator/manager to display, add or delete DCP addresses from a user's network list. Each user has 5 network lists available with no limit on the number of platforms contained on a list.

4.10.2.1 Viewing a User's Network List Entries

A user's network list entries may be viewed through display/print commands provided for displaying a User Network List (UNL). The display lists the platform addresses on the list in alphabetical order. User id and UNL number are used to select the network list to be displayed. For example, to display or print network list 2 belonging to user CEMRO1 enter:

```
DISPLAY NETWORK_LIST CEMRO1 2    (refer to Figure E-27)
PRINT  NETWORK_LIST CEMRO1 2
```

4.10.2.2 Adding DCP Addresses to a User Network List

The ADD NETWORK_LIST (UNL) command may be used to add one or more platform addresses to a user's network list. Addition of platforms is restricted to platforms with entries in the Platform Description Table (PDT). User id and UNL number are used to specify the list to be added to. For example, to add platforms CE00B8CF and CE01C200 to network list 1 of user CEMRO1 enter:

```
ADD NETWORK_LIST CEMRO1 1 CE00B8CF CE01C200
```

4.10.2.3 Deleting Platforms from a User's Network List

The DELETE NETWORK_LIST (UNL) command may be used to delete one or more platforms from a user's network list. Like the ADD NETWORK_LIST command, user id and network list number specify the list to be deleted from. For example, to delete the two platforms added in the example above, enter:

```
DELETE NETWORK_LIST CEMRO1 1 CE00B8CF CE01C200
```

Note: Deletion of an address from a user's network list does not impact any other user of the DCP. Deletion of a DCP entry in the PDT removes the DCP address from all user network lists.

4.10.3 Resetting a User's Daily Dissemination Quota

It is possible to reset the daily quota of a user who exceeded the daily limit of dissemination requests (DOWNLOAD and RETRANSMIT). The current number of requests for the user may be viewed by using the DISPLAY USER_PARMS (UDT) command. The UDT parameter, REQUEST_NUM must be reset to a value less than LI_MAX_REQS to allow the user additional requests. For example, if LI_MAX_REQS is 10 then entering:

UPDATE USER CEMRO1 REQUEST_NUM = 8 END

allows user CEMRO1 to enter 2 more DOWNLOAD or RETRANSMIT requests. Setting REQUEST_NUM to 0 would allow the user 10 requests. The LI_MAX_REQS parameter is included on the DIALIN_PARMs display (Figure E-9)

4.11 Event Message, Alarm, Bulletin and Mail Related Functions

This section describes online functions available for event messages, alarms, bulletins and mail.

4.11.1 Event Messages

The DAPS system generates event messages as the result of the occurrence of certain events such as the entry of certain commands or the change in status of a hardware component. Each event message generated is entered into the DAPS Event Log if the event number has been enabled. Furthermore, each event message may be additionally designated as an alarm and/or bulletin. The enabling of an event message as alarm and/or bulletin results in the special handling of the event message which will be described in Sections 4.11.2 and 4.11.3.

4.11.1.1 Monitoring Event Messages

Both the DAPS operator and manager can display or print selected contents of the DAPS event log, by time range and by type or event number using the DISPLAY or PRINT LOG command from the online interface:

DISPLAY LOG start-time end-time type (refer to Figure E-18)

where type may be:

- S: System related events
- P: Platform related events
- C: Channel related events
- L: Line (DOMSAT, NMC, async) related events
- O: Operator entered command inputs
- M: Manager entered command inputs
- U: Dial-in user entered command inputs
- D: Diagnostic / debug output

and id is a specific event number

In addition a refreshed display showing event messages as they occur may be activated by entering:

DISPLAY EVENT [types]

where [types] are the types described above which default to all types.

4.11.1.2 Enabling / Disabling Event Messages

Event messages may be enabled or disabled , individually or as a group, by event message number:

UPDATE ME_ENABLED (x:y) Y

enables event messages numbered x through y. Conversely:

UPDATE ME_ENABLED (x:y) N

disables event messages numbered x through y. Disabled messages are not recorded in the Event Log; nor they appear as alarms, even when defined as alarms.

The command file INIT_EVENT_MESSAGE.CMD (refer to Appendix H) was used to configure the initial state of currently defined event messages and alarms. This file can be edited to accommodate future changes and rerun.

4.11.1.3 Flushing the Event Log

Under special cases, it may be desirable to flush the contents of the Event Log, by entering:

FLUSH LOG

4.11.2 Alarms

Alarms are special event messages, with special visibility and special processing requirements. Any event message can be made into an alarm (refer to Section 4.11.2.2). Whenever an event message with "alarm characteristics" is recorded in the Event Log, DAPS automatically displays, in reverse video, the time and text of the message, at the bottom of any CRT screen which has the DAPS online interface program currently running. The bottom three lines of the CRT screen are reserved to display the latest 3 alarms, in chronological order. Concurrently, an audible alarm bell is generated on such CRT terminals. The audible warning is repeated at regular intervals until the alarm is acknowledged individually by the operator.

4.11.2.1 Acknowledging Alarms

Alarms are acknowledged individually by the operator entering the ACK command, followed by the operator's initials:

ACK abc

Acknowledged alarms revert back to normal video. As more alarms are generated, previously acknowledged alarms will scroll off from the top, to make room for the displaying of new alarms. No scrolling will take place if the oldest alarm on the screen is unacknowledged, or if there are less than 3 alarms. The period for the audible alarm bell can be adjusted for each console individually (or disabled completely) through the CO_AUDIO_ALARM parameter for the console. Refer to Section 4.13 for a complete description of console parameters.

4.11.2.2 Monitoring Alarms

Past alarms, either acknowledged or unacknowledged, can be displayed or printed, by optional time range, via the DISPLAY ALARM command (Figure E-19):

DISPLAY ALARM [since] [until]

where [since] defaults to the earliest entry in the log and [until] defaults to the latest entry in the log.

4.11.2.3 Enabling / Disabling Alarms

Event messages may be enabled or disabled as alarms, individually or as a group, by event message number:

```
UPDATE ME_ALARM (x:y) Y
```

defines event messages numbered x through y as alarms. Conversely:

```
UPDATE ME_ALARM (x:y) N
```

disables the alarm feature of event messages numbered x through y.

4.11.3 Bulletins

Bulletins are special event messages intended for all users or the users of a specific platform. Bulletins are stored in the Event Log, for dissemination to the operator, manager and to users whose primary communication medium is the dial-in line. They will be automatically displayed at logon time for dial-in users. Bulletins are also stored in the Global Message Storage, for dissemination to any user whose primary communication medium is DOMSAT. The following pseudo-DCP addresses are used for bulletins stored in the GMS:

Global bulletins: PA_GLOBAL_BULLETIN : "11111111"

DCP-specific bulletins: PA_DCP_BULLETIN : "22222222"

4.11.3.1 Sending Bulletins

Bulletins can be generated by either the manager or the operator, via the online interface:

```
SEND BULLETIN platform_id text  
ALL
```

The ALL option is used to send a bulletin to all users whereas the platform_id option is for DCP-specific bulletins. The bulletin text can be at most one line long (about 70 characters long), if entered on a separate line (using the continuation character "&"). In general, bulletin text should be enclosed in quotes if embedded blanks are present. Example:

```
SEND BULLETIN ALL "DAPS SWITCHOVER IN 15 MINUTES"
```

4.11.3.2 Monitoring Bulletins

Previously sent bulletins can be displayed via the DISPLAY BULLETIN command (refer to Figure E-21):

```
DISPLAY BULLETIN [since] [until]
```

where [since] and [until] default to the times of the earliest and latest log entries, respectively.

Because bulletins are also stored in the GMS, the operator or manager can view bulletins the GMS by using the PLATFORM_ID option of the DISPLAY MESSAGE_FILE command to search for the pseudo-DCP addresses used for bulletins:

```
DISPLAY MESSAGE_FILE PLATFORM_ID= 11111111 ! Global
```

DISPLAY MESSAGE_FILE PLATFORM_ID= 22222222 ! DCP-specific

The operator and manager can also monitor the presence of new bulletin from the top line of the online CRT display, where the date and time of the latest system bulletin is displayed. If the bulletin has been issued within the last 30 seconds, the field will be displayed in reverse video.

4.11.3.3 Enabling / Disabling Bulletins

Event messages may be enabled or disabled as bulletins, individually or as a group, by event message number:

UPDATE ME_BULLETIN (x:y) Y

defines event messages numbered x through y as bulletins. Conversely:

UPDATE ME_BULLETIN (x:y) N

disables the bulletin feature of event messages numbered x through y.

4.11.4 Mail

Unlike bulletins, the mail feature is intended for and destined to specific users. The mail function also provides the means to send a multiple line message, whereas bulletins are restricted to single lines. The operator, manager or any valid user can originate or receive mail. Users, however, cannot exchange mail. Batch processes initiated through the SUBMIT mechanism also generate mail, to notify the originators about the completion status of the batch job.

4.11.4.1 Sending Mail

The mail text can be up to 100 lines long. The SEND MAIL command from the DAPS online command interface or the dial-in user interface should be used to generate mail. To send mail, enter:

SEND MAIL user_id [file-name]

where user_id is a valid user defined in the UDT, the manager (MGR) or the operator (OPR). An optional file-name may be supplied indicating a text file to be used as the contents of the piece of mail. This file can be created offline using the SED text editor, if desired. If a file-name is not entered the on-line interface will prompt for input for the piece of mail. Input is taken from the command input line until a '>' is entered as the first character on the command input line.

4.11.4.2 Receiving Mail

Mail can be viewed by the recipient, by using:

DISPLAY MAIL (refer to Figure E-22)

The operator or manager can monitor the presence of new mail from the top line of the online interface CRT screen, where the Mail field (M:xx) will appear in reverse video whenever new (unread) mail is received and xx will indicate the number of pieces of new mail. In addition, if the CO_AUDIO_ALARM parameter for the terminal is greater than zero, the terminal bell will sound at the rate CO_AUDIO_ALARM is set to when new mail arrives.

4.11.4.3 Deleting Mail

Mail, unlike bulletins, can be explicitly deleted by using:

`DELETE MAIL time`

where time is the arrival time of the piece of mail displayed with the piece of mail. The DAPS system will automatically purge any mail older than 7 days.

4.12 System Hardware Related Functions

DAPS provides two functions for updating and monitoring system hardware. The first function is part of the online system and updates/monitors the status of the hardware components in the DAPS system. The second function uses PRESENT to insert/update information on system outages, which may or may not be caused by DAPS system hardware; the second function also uses an offline utility to produce reports on system outages (See Section 5.4).

4.12.1 System Hardware Status (SHS) Table

The System Hardware Status (SHS) table contains a record for each hardware component in the DAPS system. PRINT and DISPLAY commands for the operator/manager are available for these records. ADD, DELETE, and UPDATE commands for these records are available only to the operator. The DISPLAY SHS command (see Figure E-20) is available to both operator and manager.

All online commands for records in the SHS table work on an individual record. The component identifier and component number, the key to the record, must be known. Appendix D page D- 15 contains the description of the SHS table. Presently the actual serial numbers of the equipment are not in the table - these need to be inserted, and a report correlating component identifier and component number with serial number should be generated in order to provide an index to the keys of the SHS table.

If all the components in the DAPS system are defined in the table, the ADD and DELETE for SHS should be rarely used. The UPDATE for the SHS would be used by the operator each time a component changes status. For example, a component fails and needs to be sent out for repair:

- the operator would use the UPDATE SHS command to
- set status to R for REPAIR
- set STATUS_DATE and STATUS_TIME to date and time sent for repair
- increase the DOWN_COUNT by setting this field to current DOWN_COUNT + 1
- the operator performing the update should place his initials in UPDATE_INI

When the component returns from repair:

- the operator would use the UPDATE SHS command to
- set the status to S for SPARE (if the component is not placed back into the system as an active component) or A for ACTIVE
- update the STATUS_DATE and STATUS_TIME to indicate the time the component became available as spare or active
- the operator performing the update should place his initials in UPDATE_INI

A PRESENT macro is provided which simply reports on the entire contents of the SHS for the operator or manager. When logged on the primary DAPS machine but not in the online interface, the operator/manager may type 'PRESENT' which will execute the present.cli CLI macro, bringing up the

PRESENT software and providing access to the PRESENT DAPS macro directory which resides in :UDD:DBMSMGR:PRESMAC. Exercise the SELECT_SHS_ALL macro by typing SELECT_SHS_ALL. View the report using PRESENT or direct the report output to a file for later printing by using the "PRINT ON <filename>" PRESENT command. The filename is specified as desired.

4.12.2 Console Related Functions

The DAPS system provides several parameters which may be used configure individual consoles.

4.12.3 Displaying Console Parameters

DAPS personnel may view the current setting of console parameters, by invoking the following command from the online command interface:

```
DISPLAY CONSOLE_PARMS console_id
```

where console_id is the console number (1 - 7). The following parameters will be displayed (refer to Figure E-29):

CO_AUDIO_ALARM - This parameter indicates the audio alarm rate in seconds. If non-zero the audio alarm will sound at the specified rate when an alarm occurs or new mail is received.

CO_REFRESH_RATE- This parameter indicates the default refresh rate for refreshed displays in seconds.

CO_PRINTER - This parameter indicates the printer device or file to be used for output from the PRINT/SNAP commands. If a file is specified it will be created if it doesn't exist and recreated if it does exist. This parameter is limited to 8 characters.

CO_DEVICE - Device name (port) this console is assigned to. This is the name (CONxx) initially displayed when you sign on under CLI and must be entered in the form:

```
:PER:CONxx
```

4.12.4 Updating Console Parameters

The UPDATE command can be used any of the console parameters individually, or in groups. For example:

```
UPDATE CO_AUDIO_ALARM (1) 5
```

changes the audible alarm rate for console 1 to 5 seconds and:

```
UPDATE CO_AUDIO_ALARM (1:7) 5
```

sets the alarm rate for all seven consoles to 5 seconds.

A command file named INIT_CONSOLES.CMD was initially used to configure the consoles and the laser printer for the operator and manager work areas. The contents of this file (shown in Table 4-3) can be modified, to accomodate future changes to console definitions.

INIT-CONSOLES.CMD

5.0 DAPS OFFLINE FUNCTIONS

DAPS offline functions are those functions performed using utility programs that run under the DG's CLI interface. These are generally stand-alone programs which provide a single function such as generating a report or archiving the DAPS DBMS. In addition, macros which are available through the DG PRESENT interface are included in this section. For detailed information on PRESENT refer to the Data General publication, PRESENT Information Presentation Facility User's Manual.

5.1 Offline Platform Utilities

Two offline utilities in DAPS provide additional information about platforms. The look angle utility provides information on the visibility of platforms in relation to the GOES satellites. The map utility, which is actually a combination of PRESENT, a PC-based program, and PC-based map package, provides graphic information on the location of platforms.

5.1.1 Look Angle Utility

The look angle utility is available to both the manager and operator, although it will normally only be used by the manager.

5.1.1.1 Executing the Look Angle Utility

Using normal procedures log onto a manager work station or an operator's work station terminal (may be a non-graphics terminal).

The offline utility program to report on look angles for a platform address or a file of platform addresses can be started under CLI by typing U_LOOK_ANGLE with the appropriate additional parameters. The look angle utility displays the azimuth angle, the elevation angle, and satellite visibility. Depending on type of report selected (LONG or SHORT), it displays data on all the platforms (LONG form) or only those platforms which are not visible (SHORT form).

To run the utility enter:

U_LOOK_ANGLE <SHORT or LONG> <report file> <parm1> <parm2>

<report file> = filename or device to which to send output

<parm1> = ADDR, report on a single platform whose address is specified in parm2
= FILE, report on platforms whose addresses are contained in a file specified by <parm2>

<parm2> = <DCP address> if parm1 = ADDR
= <file name> if parm1 = FILE

Currently a PRESENT macro exists which will create a platform address file based on the contents of the operational database (selects all platforms where latitude and longitude are both not 0) called TEST_LOOK_ANGLE. The macro sends the platform addresses to a file called TEST_LOOK_DAT. More PRESENT macros may be written by the user which may establish different criteria on which to select the platforms to be reported.

ANGLE will also use as input a file called GOES_LAT_LONG (in directory :UDD:DBMSMGR) which contain the default latitudes and longitudes for the GOES east, west, and central satellites.

Alternatively, the user may also specify the latitudes and longitudes when running the look angle utility, and

thus bypass using the default values.

EXAMPLES:

U_LOOK_ANGLE LONG LOOK1.RPT FILE LOOK.FIL

- choose a LONG report
- choose LOOK1.RPT as the file to hold the report
- the addresses are input from a file called LOOK.FIL which was created using the editor

U_LOOK_ANGLE SHORT LOOK2.RPT FILE TEST_LOOK_DAT

- choose a SHORT report
- choose LOOK2.RPT as the file to hold the report
- the addresses are input from a file called TEST_LOOK_DAT which was created using PRESENT macro EST_LOOK_ANGLE

U_LOOK_ANGLE LONG LOOK3.RPT ADDR 003E840C

- choose a SHORT report
- choose LOOK3.RPT as the file to hold the report
- check the platform whose address is 003E840C

5.1.1.2 Contents of the Look Angle Report

Table F-1 is an example of a long look angle report, and Table F-2 is an example of a short report. Note the following:

- Header information gives the date and time the report was generated and the filename, if any, used as input.
- For each platform the address of the platform is given, followed by database information including the platform type, prime spacecraft, and minimum elevation angle in degrees.
- For each spacecraft, GOES east, west and central, the elevation and azimuth angles are given in degrees, and visibility is indicated by either "YES" or "NO". "***" following the visibility of YES or NO indicates that this is the data for the primary spacecraft. (If a platform is of dual type, "***" will follow both east and west spacecraft lines.) Observe in the short report example that only data for platforms not visible by the primary spacecraft are included in the report.
- At the end of the report is the total number of DCP addresses processed when producing the report. For the long report this number will also be the number of DCPs included in the report. Although not included in Table F-2, the short report also has a summary line for the number of DCPs processed; assuming that normally platforms are visible, the short report will contain data for few platforms compared to the number processed.

5.1.2 Map Utility

As stated above, the functions of the map utility are split between the Data General-based DAPS and various programs running on the Remote Manager PC based Workstation. Through the PRESENT utility, the user will select platforms of interest to be extracted from the operational database and saved in an offline file. This file is then down-loaded to the manager's PC where it is imported into the Atlas Graphics

mapping program. Atlas Graphics software is then used to display maps showing the location, DCP address and owner IDs of the selected platforms.

The following paragraphs explain each of these operations in detail.

5.1.2.1 Extract Platforms of Interest from the DAPS Database

Platforms are selected from the DAPS database based upon a latitude/longitude range supplied by the manager.

On the remote manager workstation, the D470 Terminal Emulator is brought up with the following commands:

```
CD \D470
D470
```

The manager should then be connected to the DAPS. Log into DAPS as "MGR" using the appropriate password and then perform the following:

- o Type "PRESENT" to bring up the DG PRESENT Utility
- o Type "MAP_LAT_LONG_RANGE".

This will start a macro to extract platforms based on a latitude/longitude range. The manager is then queried for the desired latitude/longitude limits. Enter the values in exactly the format shown in the query, that is "DDMMSS" (degrees, minutes, seconds) for latitude and "DDMMSS" for longitude. For south latitudes and west longitudes, precede the value with a minus sign. The first latitude/longitude coordinates represent one corner and the second latitude/longitude coordinates represent the other coordinate of the database search. The first coordinates must be less than the second coordinates for the utility to operate properly.

PRESENT will then search the database for all platforms whose location falls within this range. A report is generated containing each platform's latitude, longitude, DCP address, and owner ID. The first page of the report is shown on the screen.

- o Save this report in a file called "DCPS" with the command "PRINT ON DCPS".
- o Exit PRESENT by typing "BYE".
- o Verify that the file now exists by typing "F/AS DCPS".

5.1.2.2 Down-Load the "DCPS" File to the PC

The file created above resides in the current directory on the DAPS. This section explains how to use the file-transfer capabilities of the D470 terminal emulator to down-load this file to the PC. The file will be saved on the PC with the name "DCPS".

- o At the CLI prompt, type the command "TYPE DCPS", but do not yet press ENTER.
- o Press SHIFT-TAB (Hold SHIFT key down and press TAB key). This will bring up the D470 main menu.
- o Select "2. Receive File" from the menu by pressing "2".
- o In the space provided for file name, enter "DCPS".
- o Press the DOWN arrow key until "Receive File" is highlighted. Then press ENTER.
- o From the next menu, press the DOWN arrow key until "Return to On-Line" is highlighted. Then press ENTER.
- o When the menus disappear, the cursor will be back at the end of our "TYPE DCPS" command.

Now press ENTER.

The report will scroll-by on the screen, simultaneously being captured on the workstation disk. Note the disk-access light periodically blinking.

- o When the report is finished, press SHIFT-TAB and then "2" to get the Receive File menu again.
- o Select "Terminate File Receive" from the menu.
- o Return to the main D470 menu.
- o Select "9. Terminate D470".
- o At the DOS prompt, enter the command "DIR" to verify that there is now a file called "DCPS" in your current directory.

5.1.2.3 Import New DCP Data into Atlas Graphics

Before describing the process of importing new data, a discussion of an important Atlas Graphics limitation is pertinent.

Atlas Graphics has a hard limit of 4000 objects in any map. An 'object' can be a set of boundaries with a name such as "Kansas", a latitude or longitude line, or a single DCP. All of the geographic and political boundaries for the western hemisphere together with the appropriate latitude/longitude lines totals just under 1000 objects. Hence this leaves approximately 3000 objects to represent DCPs.

If the file contains fewer than 3000 platforms you may import the entire set into a single map of the entire western hemisphere. From this map you can then zoom-in to the areas of interest.

However, if the file contains more than 3000 platforms, the file must be split into the seven separate areas. Platforms in the continental United States are divided into six areas (Northeast, Southeast, North-Midwest, South-Midwest, Northwest, Southwest); and the remaining platforms are placed in a seventh area.

To import a file containing fewer than 3000 platforms into a single map, type "ALLDCPS" and press ENTER.

To split a file and then import it into the seven areas described above, type "SPLTDCPS" and press ENTER.

In both cases a batch file is run which reformats the file and moves it into the appropriate Atlas Graphics data directory (\AG\DATA). The batch file then runs the Atlas Graphics Import Utility. Various status information is displayed on the screen while this is done.

5.1.2.4 Display the Map Showing DCP Locations

Atlas graphics uses several different types of files. Files containing all the information necessary to display a map are called "map files". The import process above creates several map files, each of which is described below:

| Mapfile | Description |
|----------|---|
| ----- | ----- |
| NE_US | Northeast United States showing state boundaries and DCP locations. |
| NE_US_C | Same as NE_US including county boundaries. |
| SE_US | Southeast U.S. showing state boundaries and DCP locations. |
| SE_US_C | Same as SE_US including county boundaries. |
| NMW_US | North-Midwest U.S. showing state boundaries and DCP locations. |
| NMW_US_C | Same as NMW_US including county boundaries. |

| | |
|----------|--|
| SMW_US | South-Midwest U.S. showing state boundaries and DCP locations. |
| SMW_US_C | Same as SMW_US including county boundaries. |
| NW_US | Northwest U.S. showing state boundaries and DCP locations. |
| NW_US_C | Same as NW_US including county boundaries. |
| SW_US | Southwest U.S. showing state boundaries and DCP locations. |
| SW_US_C | Same as SW_US including county boundaries. |
| NON_US | Entire western hemisphere (GOES footprint) showing only DCPS <u>not</u> in one of the above areas. |
| GOES | Entire western hemisphere (GOES footprint) showing all DCPS imported. |

The "GOES" map file is created by the ALLDCPS import command described above. All other map files are created by the SPLTDCPS command.

5.1.2.4.1 Starting Atlas Graphics

See the Atlas Graphics documentation for detailed descriptions of all the commands and options available. The following paragraphs contain only a brief description of how to quickly display the maps described above.

Atlas Graphics presents a series of menus to the user. On a given menu, all of the choices have a different first letter. Something may be selected from a menu by typing its first letter.

- o Move to the Atlas Graphics program directory by typing "CD \AG" and press ENTER.
- o Start Atlas Graphics by typing "AG". Then press ENTER.
- o Press A to select "Atlas Graphics" from the menu.

5.1.2.4.2 Displaying a Map

Once Atlas Graphics has been started, perform the following steps to display a map:

- o Press M to select "Mapfile".
- o Press L for "Load".
- o Press ENTER to bring up a menu of existing map files.
- o Choose the map file you wish to display by pressing the appropriate arrow keys until it is highlighted. Then press ENTER.

The map file is then loaded into memory.

- o Press P to select "Plot".
- o Press D to select "Display".

The map is then displayed on the screen. Geographic and political boundaries are shown in yellow. Latitude and longitude lines (every 10 degrees) are shown in blue. Platforms are shown as small red points.

5.1.2.4.3 Zooming-in to Desired Regions

Once a map is displayed on the screen, areas of interest can be zoomed-in on, if desired, by performing the following steps:

- o Press Z to select "Zoom".

A white rectangle is now superimposed over the map on the screen. The box can be enlarged or shrunk

by pressing '+' or '-' respectively. The box can be moved by pressing the arrow keys.

- o Move and re-size the box until it is centered around the area of interest.
- o Press ENTER.

The selected area will now fill the screen.

5.1.2.4.4 Displaying DCP Addresses and Owner IDs with each Platform

Atlas Graphics uses four different types of objects: Regions, Curves, Circles, and Points. Each object can have a primary label and a secondary label, only one of which can be displayed at a time. The labels by default are 'turned-off'. The DAPS map utility makes use of 'points' to represent platforms. The primary label for each point is the DCP address. the secondary label is the 6-character owner ID. To 'turn-on' the labels, do the following:

- o Press C for "Configure".
- o Press M for "Map".
- o Press C for "Contents".

A screen showing several parameters and their current settings is displayed. Near the bottom is a line which says:

Point Labels On Off

- o Move the cursor to this line by pressing the DOWN arrow key repeatedly.

Either the word "On" or "Off" will be highlighted indicating which one is currently selected.

- o If "Off" is highlighted, press the LEFT arrow key so that "On" becomes highlighted.
- o Press F10 to save these changes and return to the top level menu.
- o Press P for Plot.
- o Press D for Display.

The map is then displayed. DCP Addresses will be shown in white over each platform.

To display Owner IDs, do the following:

- o Press T for "Text".
- o Press L for "Labels".
- o Press O for "Options".

A screen-full of various text parameters is now shown. Near the bottom is a line which says:

Text Primary Secondary

Move the cursor to this line by pressing the DOWN arrow key repeatedly. Either "Primary" or "Secondary" will be highlighted indicating which one is currently selected. Recall that the primary label for a point is the DCP address and the secondary label is the owner ID. Hence to display owner IDs press RIGHT so that the word "Secondary" is highlighted. Then:

- o Press F10 to save these changes and return to the top level menu.
- o Press P for Plot.
- o Press D for Display.

The map is then displayed. Owner IDs will appear in white over the DCP points.

5.1.2.4.5 Make a High Resolution Hard Copy of a Map

To make a high resolution hard copy of a map, follow the above procedure to display the desired map on the screen. Then:

- o Press P to select "Plot".
- o Press F to select "File".
- o Enter the filename "TMP" in the space provided.

The map is then displayed on the screen as it is saved to the file.

- o Press Q and Y to exit back to the top level menu.
- o Press P to select "Post-Print".
- o Press L for "Load".
- o Press S for "Single".
- o Enter the filename "TMP" in the space provided.
- o Press P for "Plot".
- o Press G for "Graphics Printer".
- o Press ENTER to begin the plot.

This will produce a plot with the best printer resolution available (300 DPI) and may take several minutes, depending on the complexity of the map.

5.2. Memorandum of Agreement Functions

The Memorandum of Agreement (MOA) Table contains the necessary information for tracking the status of a user's memorandum of agreement. Before a new user can be entered into the DAPS system (e.g. the UDT), the memorandum of agreement record pertaining to this user must exist. Although the operator and manager have access to view a MOA entry; only the manager has the capability to add/delete/update MOA entries.

Using normal procedures log onto a manager work station or an operator's work station terminal. Type 'PRESENT' which will execute the present.cli CLI macro, bringing up the PRESENT software and providing access to the PRESENT DAPS macro directory which resides in :UDD:DBMSMGR:PRESMAC.

The PRESENT macros are listed on the display and those which provide MOA support are:

SELECT_MOA_ALL

- Selects and displays the total current contents of the MOA. This can be used to produce an MOA report.

SELECT_MOA

- Selects and displays an individual MOA entry.

INSERT_MOA

- Inserts a new entry into the MOA.

DELETE_MOA

- Deletes an entry in the MOA.

UPDATE_MOA

- Updates an entry in the MOA.

Appendix D page D-6 contains the description of the MOA table. Note that the MOA_ID is the key to the table and is what must be known to select an MOA record. This MOA_ID also appears in the UDT table entry for the appropriate user.

All data must be filled in by the manager as necessary. This includes the UPDATE_DATE and UPDATE_INI (update initials), as PRESENT does not do this automatically as in the DAPS online interface. It is recommended that only upper case letters be used for text fields, since Data General DBMS and PRESENT are case sensitive.

5.3 DCP Radio Set Functions

This section describes the radio set functions available to the operator/manager via PRESENT. The online interface does have DISPLAY and PRINT functions for a radio set summary (see Section 4.2.7).

The Radio Description (RDT) Table in the DBMS contains an entry for each radio set approved for use in the DCS system. Although the operator and manager have access to view a RDT entry; only the manager has the capability to add/delete/update RDT entries.

Using normal procedures log onto a manager work station or an operator's work station terminal. Type 'PRESENT' which will execute the present.cli CLI macro, bringing up the PRESENT software and providing access to the PRESENT DAPS macro directory which resides in :UDD:DBMSMGR:PRESMAC.

The PRESENT macros are listed on the display and those which provide RDT support are:

SELECT_RDT_ALL

- Selects and displays the total current contents of the RDT. This can be used to produce an RDT report.

SELECT_RDT_MAN

- Selects and displays the current contents of the RDT for a particular manufacturer.

SELECT_RDT

- Selects and displays an individual RDT entry.

INSERT_RDT

- Inserts a new entry into the RDT.

DELETE_RDT

- Deletes an entry in the RDT.

UPDATE_RDT

- Updates an entry in the RDT.

BACKUP_RDT

- Backs up the RDT to a file called BAK_RDT. Note that if BAK_RDT already exists, the file will be deleted and recreated.

RESTORE_RDT

- Restores the RDT from a file called BAK_RDT.

The last two macros, BACKUP_RDT AND RESTORE_RDT, were developed during the loading of the operational data to ensure a backup version. They are now not needed, and are included for information only; they can be used with the operational DBMS if desired.

Appendix D page D-13 contains the description of the RDT table. Note that the key is comprised of MANUFACTURER and MODEL_NO, and this is what must be known to select an RDT record. The MANUFACTURER and MODEL_NO are also the same as what appears in the PDT table entry for the appropriate platforms - this PDT information must be filled in for a PDT to be declared as "complete".

All data must be filled in by the manager as necessary. This includes the UPDATE_DATE, UPDATE_INI (update initials) and UPDATE_NUMBER, as PRESENT does not do this automatically as in the DAPS online interface. It is recommended that only upper case letters be used for txt fields, since Data General DBMS and PRESENT are case sensitive.

5.4 System Outage Log (SOL) Functions

PRESENT is used by the operator to insert/update information on system outages. When logged on the primary DAPS machine but not in the online interface, the operator may type 'PRESENT' which will execute the present.cli CLI macro, bringing up the PRESENT software and providing access to the PRESENT DAPS macro directory which resides in :UDD:DBMSMGR:PRESMAC.

The PRESENT macros are listed on the initial PRESENT display. Those which provide SOL support are:

SELECT_SOL_ALL

- Selects and displays the total current contents of the SOL.

SELECT_SOL

- Selects and displays an individual SOL entry.

INSERT_SOL

- Inserts a new entry into the SOL.

DELETE_SOL

- Deletes an entry in the SOL.

UPDATE_SOL

- Updates an entry in the SOL.

Appendix D page D-16 contains the description of the SOL table.

Note that in order to select/insert/delete/update SHS records the key must be provided, which consists of the DOWN_DATE and DOWN_TIME fields.

Normally the DELETE function for SOL would not be needed. At the time of an outage, the operator would use the INSERT_SOL to enter a new outage record, including the following fields when filling out the form:

| | |
|------------------------------|---|
| DOWN_DATE | - date of start of failure (YYYYDDD) |
| DOWN_TIME | - time of start of failure (HHMMSS) |
| OUTAGE_TYPE | - outage classification |
| EI: East DCPI, ER: East DCPR | |
| WI: West DCPI, WR: West DCPR | |
| XX: Other | |
| OUTAGE_CAUSE | - an integer number for the outage code (see the SCT table) |
| UP_DATE | - date service restored if known (YYYYDDD) |
| UP_TIME | - time service restored if known (HHMMSS) |
| COMMENTS | - optional comments |
| UPDATE_INI | - up to 3 initials of operator making entry |

Appendix D page D-14 contains the description of the SOL Cause (SCT) table. The SCT table may be referred to when determining the code number which is needed when creating a new SOL entry. Table 5-1 contains the current contents of the SCT table.

If the outage is not yet resolved, the operator will later need to update this record for the UP_DATE and UP_TIME. Note that the operator must know the DOWN_DATE and DOWN_TIME in order to do this.

The DAPS system also has PRESENT macros for maintaining the SCT table which is used in conjunction with SOL reporting. Those which provide SCT support are:

SELECT_SCT_ALL

- Selects and displays the total current contents of the SCT.

INSERT_SCT

- Inserts a new entry into the SCT.

DELETE_SCT

- Deletes an entry in the SCT.

CONTENTS OF SOL CAUSE TABLE (SCT)

| OUTAGE_CAUSE | OUTAGE_LABEL |
|--------------|---------------------|
| ----- | |
| 1 | Eclipse |
| 2 | Unknown |
| 3 | Maintenance |
| 4 | Demodulator drawer |
| 5 | Demodulator channel |

| | |
|----|---------------------------------------|
| 6 | Power failure |
| 7 | Channel (runaway DCP) |
| 8 | Channel (RFI source unknown) |
| 9 | Communications lines |
| 10 | System A failure |
| 11 | System B failure |
| 12 | Disk drive |
| 13 | Satellite switching |
| 14 | RFI (all system) |
| 15 | S band transmitter failure |
| 16 | Testing |
| 17 | Antenna failure |
| 18 | Operator error |
| 19 | OPERATOR ERROR |
| 20 | SYS OPERATING SOFTWARE FAILURE (SQL) |
| 21 | SOLAR INTERFERENCE |
| 22 | SYSTEM A+B FAILURE |
| 23 | DCPI TRANSMITTER FAILURE |
| 24 | UPLINK PILOT PROBLEM EAST |
| 25 | UPLINK PILOT PROBLEM WEST |
| 26 | UPLINK PILOT PROBLEM ALL SYSTEMS |
| 27 | UPLINK AMP FAILURE |
| 28 | FALLBACK SWITCH / SWITCH OVER FAILURE |
| 29 | HIGH POWER AMP FAILURE |
| 30 | SWITCHED ANTENNA |
| 31 | LO FAULT |
| 32 | SPACECRAFT TRANSPONDER SWITCH |
| 33 | 13 M DOWN CONVERTER FAILURE |
| 34 | ILLEGAL DCP OPERATION-NO DATA LOSS |
| 35 | UNKNOWN INTERFERENCE |
| 36 | ANTENNA PEAKING |
| 37 | LOSS OF PILOT LOCK |
| 38 | SOCC COMMANDING/TESTING SPACECRAFT |
| 39 | DOMSAT OUTAGE |
| 40 | ELECTRICAL STORMS/HEAVY RAIN |
| 41 | IFDS PROBLEM/OPERATIONS |
| 42 | COMPUTER CRASH REBOOT REQ. |
| 43 | RFI EAST SYSTEM |
| 44 | RFI WEST SYSTEM |
| 45 | TIMING |
| 46 | DCPI HELIX ANTENNA PROBLEM EAST/WEST |
| 99 | OPR ENTRY |

5.4.1 System Outage Report Utility

The offline utility program to report on the contents of the SOL is available to both the operator and manager. The SOL report utility reports the down time and number of outages by outage type and outage cause. These statistics may be obtained on a yearly, quarterly, monthly, or daily basis.

5.4.1.1 Executing the System Outage Report Utility

The system outage report utility can be started under CLI by typing U_REPORT_SOL. To run the utility, enter:

U_REPORT_SOL <report period> <parm1> <parm2> <parm3> <parm4>

| | |
|-------------------|-----------------------|
| <report period> = | one of the following: |
| YEAR | for yearly totals |
| QUARTER | for quarterly totals |
| MONTH | for monthly totals |
| DAY | for daily totals |

<parm1> = an integer number, whose meaning depends on report period

- if YEAR, <parm1> = <year>
- if QUARTER, <parm1> = <quarter>
- if MONTH, <parm1> = <month>
- if DAY, <parm1> = <julian start day>

- if YEAR, <parm2> = filename, year, or day depending on report period
- if QUARTER or MONTH, <parm2> = filename for report output
- if DAY, <parm2> = YEAR
- if DAY, <parm2> = <julian end day>

- if QUARTER or MONTH, <parm3> = filename or year, depending on report period
- if QUARTER or MONTH, <parm3> = filename
- if DAY, <parm3> = <year>
- note <parm3> invalid for YEAR

- note <parm4> = filename if <report period> = DAY
- note <parm4> valid only for DAY

Errors encountered while processing the System Outage Report (such as illegal dates and time) will be listed on a separate report page.

EXAMPLES:

- choose year 1989
U_REPORT_SOL YEAR 1989 year89.rpt
- choose 2nd quarter for 1989
U_REPORT_SOL QUARTER 2 1989 quarter2.rpt
- choose November of 1989
U_REPORT_SOL MONTH 11 1989 month11.rpt
- choose 150th julian day of 1989
U_REPORT_SOL DAY 150 150 1989 day150.rpt

Table F-12 contains a sample of a system outage report. Note that the outage code number is resolved into a text explanation. Appendix D page D-14 contains the description of the SOL Cause (SCT) table which provides this resolution.

5.4.1.2 System Outage Report Contents

Table F-12 contains a sample system outage report. Note the following:

- The header information contains the date the report was produced and the type of report requested, a monthly report.
- The outage causes are grouped by outage type. For example, an "Antenna failure" is a cause under outage type "EAST DCPI".
- The "INCIDENTS" column is the number of occurrences for each outage cause, and the "DOWN TIME" is the total down time for this number of incidents. The "% TOTAL" is the per cent of these incidents in the "TOTAL NUMBER OF OUTAGES" (see summary lines at the bottom of the report).
- The "SYSTEM AVAILABILITY" is the total up time as a per cent of the total available time.

5.5. Additional Miscellaneous PRESENT Macros

Additional PRESENT macros may be written by the manager as desired to view the contents of the DBMS. Some examples have been provided in the DAPS macro directory which may be useful:

SELECT_CDT_ALL

- Selects and displays the total current contents of the CDT. This can be used to produce a CDT report.

SELECT_PDT_ALL

- Selects and displays the total current contents of the PDT. This can be used to produce a PDT report, but it would be very long (more than one page per platform); it would be better to modify this macro and limit the report.

SELECT_PDT_ALL_COMPLETE

- Selects all the platforms which are complete, sorts them by user, then DCP address. Reports owner, DCP address, primary type, primary channel, primary spacecraft, NMC flag, and trigger mode - one line used per platform.

SELECT_PDT_ALL_INCOMPLET

- Selects all the platforms which are incomplete, sorts them by user, then DCP address. Reports owner, DCP address, primary type, primary channel, primary spacecraft, NMC flag, and trigger mode - one line used per platform.

SELECT_UDT_ALL_ACCT

- Selects all the users in the DBMS, and makes a report whose output can be used to make user accounts via the make user macro in the macros directory.

SELECT_UDT_ALL

- Selects all the UDT entries and makes a full report on each entry.

SELECT_UNL_ALL

- Makes a full report on the contents of the UNL, ordered by user, then list identifier, then DCP address.

SELECT_CST

- Selects and displays channel statistics for a specified channel and month in the CST table (See appendix D, page D-2).

SELECT_DST

- Selects and displays DOMSAT statistics for a specified month in the DST table (See appendix D, page D-4).

SELECT_LST

- Selects and displays dialin statistics for a specified month and line in the LST table (See appendix D, page D-3).

SELECT_NST

- Selects and displays NMC statistics for a specified month in the NST table (See appendix D, page D-7).

SELECT_PST

- Selects and displays platform statistics for a specified platform in the PST table (See appendix D, page D-10).

SELECT_UST

- Selects and displays user statistics for a specified month, user and channel in the UST table (See appendix D, page D-20).

5.6 DAPS Report Generation Functions

All reports are available for generation by both the manager and the operator. The daily reports are automatically generated and should be of interest to both the operator and manager. Other platform, channel and user reports will mostly be of interest to the manager. The monthly test transmitter report and system outage report will be of use to the operator as well as the manager.

Reports are generally produced using offline programs. These programs must be run on the primary DAPS system in order to have access to information stored in the DBMS.

Most reports are written to a filename. Under CLI the QPRINT command would be used to direct the report output to the desired printer.

5.6.1 Platform Reports

The DAPS system automatically produces a daily platform summary report. A platform summary report is also available for generating data on platforms owned by one user or platforms owned by all users. This utility has options for the last full day, the current month, the last month, or a combination of the three.

This report is also available for a user's previous month through the online interface DISPLAY PLATFORM_SUMMARY command (see section 4.2.6).

5.6.2 Daily Platform Summary Report

The daily platform summary report is produced automatically by the DAPS software shortly after midnight. The output of the report is stored in the file DAILY_PLAT.RPT. This report contains information on platforms whose messages (or missing messages) generated errors in the DAPS system.

Table F-3 contains a partial sample (first and last page) of a daily platform summary report. Note that:

- The header information has the date and time the report was generated. In the centered report header is the julian day for which the data has been tabulated.
- The platforms with errors are sorted alphabetically.
- The EXPECTED MSGS is the number of messages expected based on a schedule (for S and I type platforms), or the number received from a platform of R type. The TOTAL MSGS is the number of messages received. The #ADDR ERRS are the number received with correctable address errors. The #RSCHD are the number received with time errors as too early or too late. The #WRONG TIME ERRS are the number of messages received outside the platform's time window. The #WRONG CHAN ERRS are the number of messages received on the wrong channel. The #MULT CHAN ERRS are the number of messages received on the wrong channel as well as the correct channel.
- The last page of the report contains summary information on the platforms with errors, including the TOTAL # OF PLATFORMS WITH ERRORS, the TOTAL # OF PLATFORMS ACTIVE for that day, and the % OF ACTIVE PLATFORMS WITH ERRORS.
- Under USERS THAT EXCEEDED THEIR DAILY QUOTA would be a list of users who that day exceeded their daily time quota on a random channel (current daily time quota for one random platform, 60 seconds, multiplied by the number of platforms owned by that user assigned to that channel).
- Under PLATFORMS THAT EXCEEDED THE DAILY TIME QUOTA is an alphabetical list of the random platforms which exceeded the current daily quota for a random platform (presently 60 seconds).

5.6.1.2 Platform Summary Report

The offline utility program to report on platform statistics by user and channel type is available to both the operator and manager. The DAPS system has platform statistics for the last full day, the current month, and the previous month.

5.6.1.2.1 Executing the Platform Summary Report

Log on as an operator or manager. The platform summary report utility can be run under CLI. To run the utility, enter:

DCP_REPORT

The utility then prompts:

Select Platform Statistics Options Desired:

D - Last full day
C - Current month
M - Last full month

Enter options (Example: 'DCM'):

After the option(s) desired have been entered, the utility will prompt:

Enter name of file for report output:

At this point enter the name of the file the report is to be written to. If this file does not exist, it will be created. If this file does exist, it will be recreated. After the file name has been entered the utility will run and produce the desired report. The utility displays status information as the report is produced:

PLEASE WAIT
PLATFORM PERFORMANCE SUMMARY REPORT IN PROGRESS

Users Processed: 1

5.6.1.2.2 Platform Summary Report Contents

Table F-4 contains a partial sample of a platform summary report. Note that:

- The header information has the date and time the report was generated. In the centered report header are the options selected for generating this report.
- Platform data is sorted by user, then by spacecraft and channel, then by DCP address.
- STA indicates type of statistics contained in this line item: 'D' for last full day, 'C' for current month and 'M' for last month.
- ADDRESS is DCP address. Note where address remains the same for multiple statistics collected, the line item is left blank for readability. A '*' indicates an incomplete PDT entry.
- CHAN-T indicates channel, spacecraft and channel type.
- CUR A/D is the current status of the platform. Note that status pertains only to the current status.

- CHGS A/D is the number of status changes for this platform's statistical period. Note that this statistic is not relevant to the last full day.
- A/D DAY is the day a message was received by julian day. If the platform is deactive, this is the day of the last message received. If the platform is active, it is the day on which it became active.
- # ERR FREE is the number of good messages received in this period.
- # WITH ERR is the number of messages with parity errors.
- # MISS is the number of missing messages.
- RECVD % is the percent of expected messages received.
- DATA A/L is the average data length in bytes of a message.
- TIME A/L is the average time in seconds of a message.
- WRONG CHANS is the number of messages received on the wrong channel.
- MULTI CHANS is the number of messages received on multiple channels.

5.6.2 Channel Reports

The DAPS system automatically produces a daily channel summary report. A channel utilization report is also available for generating data on the current month and previous eleven months.

5.6.2.1 Daily Channel Utilization Statistics

The daily channel summary report is produced automatically by the DAPS software shortly after midnight. The output of the report is stored in the file DAILY_CHAN.RPT. This report contains information on all channels defined in DAPS.

Table F-5 contains a partial sample of a daily platform summary report. Note that:

- The header information has the date and time the report was generated. In the centered report header is the julian day for which the data has been tabulated.
- The channels are arranged by spacecraft (east then west), and within spacecraft by number.
- Under DEMOD/SLOT is the demodulator number and slot number currently assigned to this channel.
- By channel, information on TEST TRANSMISSIONS includes:
 - TEST MSGS, the number of test transmitter messages sent.
 - MISS MSGS, the number of missing test transmissions.
 - PAR ERRS, the number of test messages received with parity errors.
 - ADDR ERRS, the number of test messages received with correctable address errors.

- BAD QMS, the number of test messages received with bad quality measurements.
- By channel, information on DCP messages includes:
- # EXP MSGS, the number of expected messages (based on a schedule for S and I types, actual number received for R type).
- TOTAL MSGS, the total number of messages received.
- # MISS, number of missing messages (for channels with associated schedules).
- #ADDR ERR, the number of messages within correctable (garbled) or invalid addresses.

5.6.2.2 Channel Utilization Report

The offline utility program to report on the monthly statistics for channels is available to both the operator and manager. The DAPS system has channel statistics for the current month and the previous eleven months.

5.6.2.2.1 Executing the Channel Utilization Report

Log on as an operator or manager. The channel utilization report utility can be run under CLI. To run the utility, enter:

```
U_CHANNEL_UTILIZATION <month> <filename>
```

<month> = an integer from 1 -12, representing the desired month for the report

(filename) = filename for report output

EXAMPLES:

```
U_CHANNEL_UTILIZATION 6 CHANMON6.RPT
```

- choose June
- choose CHANMON6.RPT as the file to hold the report

```
U_CHANNEL_UTILIZATION 3 CHANMON3.RPT
```

- choose March
- choose CHANMON3.RPT as the file to hold the report

5.6.2.2.2 Channel Utilization Report Contents

Table F-6 contains a partial sample of a channel utilization report. Note that:

- The header information has the date and time the report was generated. In the centered report header are the month and year for which this report was generated.
- Channels under 200 are sorted by spacecraft, then by type, and then by channel number in ascending order. Channels over 200 are sorted by type, by channel in ascending order, and then

by spacecraft (this means that there will be two entries with the same channel number for international channels, and these will be designated E and W).

- DCPS ASSIGNED is the number of DCPs assigned to this channel. DCPS ACTIVE are the number of DCPs active on this channel this month. DCPS ACTIVE divided by DCPS ASSIGNED gives % OF ASSIGNED USED. AVG TIME USED is the average number of seconds used per day, and the % AVAIL USED is this number of seconds divided by the number of seconds in a day, 86400.
- Note that there are subtotal lines by type. The end of the report (not shown) also has subtotals for each spacecraft.

5.6.3 User Reports

The user reports and macros are described below in the order in which they would be exercised for any given month. This is important because the output of some of these report programs includes, as well as a report, an update to DBMS tables which in turn affect the data available for subsequent user reports.

5.6.3.1 Monthly User Statistics

At the end of each month the DBMS User Statistics (UST) Table (see Appendix D, page D-20) must be updated. The UST contains information about channel usage by each DCS user for the previous twelve months and is used to generate the USER_UTILIZATION report. The UST is updated by running the offline utility USER_STATS. Under normal circumstances, the USER_STATS utility will be automatically scheduled to run by the DAILY_STATS utility on the last day of the month. If, however, this does not occur the utility may be run manually by the operator or manager under CLI by entering:

```
USER_STATS
```

5.6.3.2 User Utilization Report

The offline utility program to report on the monthly statistics for user utilization is available to both the operator and manager. The DAPS system has user statistics by channel for the the previous twelve months. This utility reports on users by channel, for one user or all users.

5.6.3.2.1 Executing the User Utilization Report

Log on as an operator or manager. The user utilization report utility can be run under CLI. To run the utility, enter:

```
U_USER_UTILIZATION
```

After entering this input line the utility prompts:

Enter month (JAN - DEC) or quarter (1 - 4):

At this point enter a month (the shortest recognizable abbreviation is acceptable) or a quarter. If the month or quarter entered is equal to or greater than the current month or quarter, it is assumed the request is for the previous year. The utility will then prompt:

Enter User Id or 'ALL' for all users:

Respond by entering a valid user id (a UDT entry) or 'ALL'. The 'ALL' option will generate a report for all users. A user id will generate a report for a single user. The utility will then prompt:

Enter name of output file:

Enter the name of the file the report is to be written to. If the file does not exist, it will be created. At this point the generation of the report will begin.

5.6.3.2.2 User Utilization Report Contents

Table F-7 contains a partial sample of a user utilization report. Note that:

- The header information has the date and time the report was generated. In the centered report header are the month and year for which this report was generated.
- For each user, the USER ID is included, as well as the user organization name, parent organization name, and major organization name.
- Channels are in ascending order.
- #DCPS ASGND is the number of DCPs assigned to this channel for this user. % ACT is the percentage of DCPs active on this channel this month for this user. TIME ASGND is the amount for time assigned to this user on this channel. &TIM USED is the number of seconds divided by the number of seconds assigned. ERROR FREE is the number of error free messages received. WITH ERROR is the number of messages received with parity errors.
- Note that there are subtotal lines by user for each spacecraft, and a total for each user.

5.6.3.3 User Summary Report

The offline utility program to report on the monthly statistics for a summary of users is available to both the operator and manager. The DAPS system has user statistics by channel for the previous twelve months. This utility reports on users by type of user, and by major, parent, and user organization.

This utility also updates the User Summary Table (USU, see appendix D, page D-21) for the designated month. The contents of the USU is the source of data for the graphics macros for user summary pie graphics (See Section 5.6.3.4)

5.6.3.3.1 Executing the User Summary Report

Log on as an operator or manager. The user summary report utility can be run under CLI. To run the utility, enter:

```
U_USER_SUMMARY <month> <filename>
```

<month> = an integer from 1 - 12, representing the desired month for the report

(filename) = filename for report output

EXAMPLES:

U_USER_SUMMARY 6 USERSUM6.RPT

- 6 represents June (a month must be chosen)
- choose USERSUM6.RPT as the file to hold the report

U_USER_SUMMARY 7 USERSUM7.RPT

- 7 represents July
- choose USERSUM7.RPT as the file to hold the report

5.6.3.3.2 User Summary Report Contents

Table F-8 contains a partial sample of a user summary report and the summary page of the report. Note the following on the first page of the sample report:

- The header information has the date and time the report was generated. In the centered report header are the month and year for which this report was generated.
- Types of users are presented alphabetically , and would follow this order:
 - C - Canada
 - D - domestic
 - F - Federal government
 - O - other
 - S - state

Within each type of user, the users are sorted by major name, and then by parent name.

- For each user, the user organization name, parent organization nae, and major organization name are included.
- Under DCP TYPE are the numbers of each type of platform (S, I, R or D) owned by this user. ASSGN gives the total number of platforms for all types, and ACTVE gives the number of platforms active for this user. The %ACTVE id the number ACTVE divided by number ASSGN.

Note the following on the second page of the sample report, which is the summary page:

- The header information has the date and time the report was generated. In the centered report header are the month and year for which this report was generated.
- Types of users are presented alphabetically , and would follow this order:
 - C - Canada
 - D - domestic
 - F - Federal government
 - O - other
 - S - state

Within each type of user, the users are sorted by major name. After major names, the type of user is totaled.

- PERCENT OF SYSTEM BY USER is the % of assigned platforms for this major user as a % of the total number of platforms in the system.
- Under GOES DCS DISSEMINATION SUMMARY are the type of users with information showing what number of each type of user uses what primary method to receive message data. There is also a TOTALS line to summarize the counts of primary method of dissemination for all types.
- Under GOES DCS DCP SUMMARY each major type of user is summarized for the number of each type of DCP which is owned, and the total number active and % active. The % INC ASN is the percent increase in assigned as compared to the data for the previous month in the USU table. The % INC ACT is the percent increase in active as compared to the data for the previous month in the USU table.

5.6.3.4 User Summary Graphics

The macros to generate monthly user summary pie charts run under PRESENT (which is using the TRENDVIEW package). These macros are available to both the operator and manager. These macros use the User Summary Table (see USU, see appendix D, page D-21) as the source of information for the designated month.

5.6.3.4.1 Executing the User Summary Graphics

Pie-type graphics can be produced for the any of the previous 12 months. Pie-type graphics are available to report in either of two major ways:

- Pie graphics to report on all users by user type (fed,state,domestic,Canada,other_foreign)
- Pie graphics to report on federal users by major organization.

Assuming you are logged in as MGR or OPR on a PC emulating a DG color graphics terminal, type 'PRESENT' to execute the present.cli CLI macro, bringing up the PRESENT software and providing access to the PRESENT DAPS macro directory which resides in :UDD:DBMSMGR:PRESMAC.

The PRESENT macros are listed on the display. Those which support pie graphics for federal users are PIE_FEDUSERS_JAN through PIE_FEDUSERS_DEC. Those which support all users by user type are PIE_ALLUSERS_JAN through PIE_ALLUSERS_DEC.

EXAMPLES:

Pick a month (June) and in PRESENT type

PIE_FEDUSERS_JUN
or
PIE_ALLUSERS_JUN

Once the report appears on your screen (takes less than 5 minutes), snap the screen's contents to the printer with the "printscreen" key to obtain a hardcopy of the graphics (also takes a few minutes).

Helpful hints:

- You may find that the loss of the cursor is inconvenient - it can be restored by typing "ALT =".

- You may wish to have the pie without the "TRANSACTION COMMITTED" on the graphics. Type "VIEW" under PRESENT and this will redraw the pie without this information.

The above steps generate pie charts in color which will snap to the black and white laser printer with shades of gray. Pie charts may be generated without color; pie portions are shown in different hatch patterns rather than color, and may be desirable for printer output. In order to generate black-and-white pie charts:

Assume you are logged in as MGR or OPR on a PC emulating a DG D461 graphics terminal (access the Rhinetek emulator terminal parameters and set the terminal type to D461) type 'PRESENT_BW' to execute the present.cli CLI macro, bringing up the PRESENT software and providing access to the PRESENT DAPS macro directory which resides in :UDD:DBMSMGR:PRESMAC. The PRESENT macros are listed on the display. Proceed as above.

5.6.3.4.2 User Summary Graphics Contents

Figure F-9 and F-10 show pie charts for all users and federal users.

5.6.4 Test Transmitter Reports

The offline utility program to report on the monthly and yearly statistics for channel test transmissions is available to both the operator and manager. A daily test transmission summary is also available (See Section 5.6.2.1). The DAPS system has channel test transmission statistics for the current month and the previous eleven months.

5.6.4.1 Executing the Test Transmission Report

Log on as an operator or manager. The channel utilization report utility can be run under CLI. To run the utility, enter:

```
U_TEST_TRANSMITTER <report period> <parm1> <parm2>
```

<report period> = YEAR or MONTH

<parm1> = filename if report period is YEAR or integer number 1 - 12 for month if report period is MONTH

<parm2> = filename if report period is MONTH

EXAMPLES:

```
U_TEST_TRANSMITTER MONTH 6 TTJUN.RPT
```

- choose June
- choose TTJUN.RPT as the file to hold the report

```
U_TEST_TRANSMITTER_UTILIZATION YEAR TTYR.RPT
```

- choose TTYR.RPTRPT as the file to hold the report

5.6.4.2 Test Transmission Report Contents

Table F-11 contains a partial sample of a monthly test transmission report. Note that:

- The header information has the date and time the report was generated. In the centered report header are the month and/or year for which this report was generated.
- Test transmission failures are sorted by spacecraft and then by channel.
- DEMOD/SLOT shows the current demodulator and slot assignment for the channel. AUT TST shows whether the channel is tested automatically by DAPS or not. TT ID shows the number of the test transmitter used for auto test. TEST MSGS shows the total number of test messages attempted on this channel (both auto and manual). MISS MSGS are the number of missing test transmissions, followed by the % these represent of total messages. PARITY ERRS are the number received with parity errors, followed by the % these represent of total messages. ADDR ERRS are the number received with address errors, followed by the % these represent of total messages. BAD QMS are the number received with bad quality measurements, followed by the % these represent of total messages.
- The end of the report (not shown) also has subtotals for each spacecraft and final totals.

5.7 DAPS Database Maintenance Procedures

This section describes procedures to be used for archiving the DAPS database, restoring the DAPS database, and checking the integrity of the DAPS database.

5.7.1 Archiving the DAPS Database

A procedure has been provided to archive the DQ/SQL database, as well its real-time counterpart, on a daily basis, to safeguard against catastrophic failures that may require database restoration. This procedure should be run from the OPR account on any terminal connected to the "primary" DAPS computer, or from the system console of the "primary" computer (OP account). Before running this procedure, the DAPS operator must check the following:

- a. A tape must be mounted, on the "primary" computer's tape drive, with the proper density (6250), and with the write ring on.
- b. The tape drive must be "on-line".

To start the archive, the DAPS operator must enter:

```
) ARCHIVE_DBMS
```

and respond to the prompt.

It is important for this procedure to run uninterrupted, since the database remains "locked" for the duration of the archiving process, and will remain so in case of abnormal termination (e.g., switch-overs should be avoided if possible). Also, since other online or offline DBMS accesses will be "locked-out", it is best not to schedule the archiving during the periods of high- activity, or when the daily DBMS reports are scheduled to run (around midnight GMT).

In case the DBMS were left in a "locked" state, due to an abnormal termination, the following steps must be followed to unlock the database:

- a. From the system console, use WHOS to verify the status of SQL_DDU; if necessary, terminate it (this may require superuser and superprocess privileges);
- b. Enter the following from the system console:

```
*) X SQL_DDU  
UNLOCK_DATABASE/DATABASE=:MIRROR2:DAPSOP:DAPS  
BYE
```

5.7.2 Restoring the DAPS Database

A procedure has been provided to restore the DG/SQL database, and its real-time counterpart, after a catastrophic failure. The DAPS operator must mount a previously archived database tape on the tape drive of the "primary" computer, and enter the following from the system console:

```
*) RESTORE_DBMS
```

This will restore the DG/SQL database from tape, and the real-time database from the backup file (AB_DBMS.BAK).

As during the archiving process, the DBMS will be "locked" for the duration, and will remain so if the restore operation is terminated prematurely. Refer to the previous section for a description of how to "unlock" the DBMS, if necessary.

5.7.3 Checking the DBMS Contents

The contents of the real-time database should always match the contents of the related DG/SQL tables, since the former is automatically check pointed after every UPDATE operation. However, the possibility still exists for the two databases to get out of sync, especially if the DG/SQL tables were modified from PRESENT. It is a good idea to compare the contents of the real-time and SQL tables periodically, by running the CHECK_DAPS_DBMS utility, from the OPR account, on any terminal connected to the "primary" computer:

```
CHECK_DAPS_DBMS
```

The utility has options to verify the contents of the Platform Description Table (PDT), or the Channel Description Table (CDT) or both. The utility can be run just to verify the contents, or to perform the required corrections. In the case of a mismatch, the utility always uses the contents of the DG/SQL tables to correct the real-time database.

Note: This utility does not attempt to validate the contents of the SQL database tables when using them to update the real-time database. For this reason, extreme care should be taken when modifying the SQL tables through any method other than the on-line interface (PRESENT, for example).

5.8 Monitoring System Users and Processes

The operators or manager can monitor the activity of system users via the procedures described in Section 4.9.1. In addition, they can use the following AOS/VS tools to examine the activity of current users or processes:

- a. WHOS: One shot static display generated from a CLI macro, summarizing the status of all current processes in the system; it can be invoked from any terminal, any directory under CLI.
- b. The Process Environment Display (PED) program: PED has options to generate dynamically refreshed displays about current processes; it can be invoked from any directory, under CLI.
- c. The CPU Performance Monitor (CPUTIME): This program should run from the :PKGS:MONITOR directory. It gives a more accurate breakdown of CPU usage, by system and user processes.

6.0 DAPS STARTUP, SHUTDOWN AND SWITCHOVER PROCEDURES

The following sections describe the startup, shutdown and switchover procedures for the DAPS system:

6.1 System Startup Procedures

This section describes how to activate the DAPS system.

6.1.1 Powering Up the Computer and Starting up AOS/VS:

The following steps are required to startup a DAPS system:

- a. Power up the system disk (DPJ0) and the local disk (DPJ1) if necessary ; wait until the disk drives are ready;
- b. Power up the lower (MIRROR1) and upper (MIRROR2) mirrored disk pairs, if necessary; MIRROR1 consists of DPJ10 and DPJ11 disk units (DPJ10 is the lower drive); MIRROR2 consists of DPJ20 and DPJ21 disk units (DPJ20 is the lower drive);
- c. Power up the system console and all other peripherals (line printer, terminals);
- d. Turn on the computer power by sliding up the power switch on the left of the control panel; wait for the self-test to complete;
- e. If the powerup testing is finished and the Automatic Load Menu appears, type 1 to "Continue immediately with preset values". If the SCP-CLI/Jp0> prompt appears instead, enter the following:

```
SCP-CLI/Jp0> RESET
SCP-CLI/Jp0> BOOT 024
```

From the Operating System Load Menu, type 1 to "Continue immediately with operating system load":

```
...
Enter choice [1]: 1
...
Override Default Specs [N]? N
...
AOS/VS CLI REV n date time
```

6.1.2 Bringing up EXEC and DAPS as a BACKUP:

The next step is to bring up the AOS/VS EXEC and the network, to open the batch and printer queues, and to start the following DAPS processes:

- a. The front-end process;
- b. The watchdog process;
- c. The DAPS_ROOT process;
- d. The CLEANUP process.

This is accomplished by typing UP (or UP.CLI) from the system console:

```
) UP
```

The operator should wait a minute or two for the initializations to complete. If the other DAPS system is not running, the watchdog process on this computer will automatically send a command to the switch to connect to the "switchable" devices (including consoles); otherwise the switch settings will remain unaffected.

6.1.3 Starting the Real-time DAPS Software

Initially, when both DAPS computers are brought up, the first one started (via the UP macro) will assume "primary" status, unless both are initiated simultaneously, in which case the DAPS system on Computer A is declared the "primary". This forces all "switchable" DAPS devices to connect automatically to the "primary" DAPS. At this point:

- a. Only the front-end and watch-dog software is running on either computer.
- b. No real-time functions can be performed (message archiving, validations, interrogations, testing, disseminations);
- c. No operators, users or manager can log on.

To start the real-time software, the operator should enter from the system console of the "primary" system:

```
) SUPERUSER ON
*) :UDD:DAPS:OPR:INIT_DAPS
```

This procedure will do the following:

- a. Initialize the global (mirrored) disks:
 - Perform any FIXUP operation, if necessary
- b. Activate the real-time processes :
 - CHKPT_DAPS
 - INIT_DAPS
 - RT_PROCESSOR
- c. Enable the SQL servers for DBMS accesses
- d. Enable the printer and batch queues; activate selected network functions (RMA, FTA, SVTA)
- e. Enable operator and dial-in terminals
- f. Start a copy of the DAPS online command interface program in the operations work area

The above procedure should be run, if and only if neither DAPS computer is in "primary" state, i.e.,:

- a. Initially, after a system power-up, when neither system has been started; or
- b. After a RELEASE_DAPS (refer to Section 3.7.3.2.), when the mirrored disks have been released.

The progress of the above steps can be followed from the system console, as well as from a specially configured CRT terminal in the operations work area.

6.1.4 Starting the D470 Emulator

When a PC is to be used as a DAPS terminal, the D470 Terminal Emulator must first be activated. After bringing up the PC under MS/DOS enter:

```
C:\> cd D470
C:\D470> d470
```

Enter Return, until the Username prompt appears.

6.2 Switch-over Procedures

The DAPS system is capable of switching-over its real-time functionality, from the current "primary" DAPS computer, to the "backup" DAPS computer. This can be done:

- a. Manually, by the DAPS operator; or
- b. Automatically, by the DAPS watchdog.

In either case, the old "backup" DAPS computer assumes "primary" status, after it initiates the following actions:

- a. Initialize the global (mirrored) disks:
 - Perform any FIXUP operation, if necessary
- b. Activate the real-time processes :
 - CHKPT_DAPS
 - INIT_DAPS
 - RT_PROCESSOR
- c. Start a copy of the DAPS online command interface program in the operations work area
- d. Enable the SQL servers for DBMS accesses
- e. Enable the printer and batch queues; activate selected network functions (RMA, FTA, SVTA)
- f. Enable remaining operator terminals, the manager console and dial-in terminals

The progress of the above steps can be monitored from the system console, as well as from a specially configured CRT terminal in the operations work area.

After a switch-over is complete, an entry will be made to the Event Log, recording the time and reason for the switch-over. Also, automatic switch-overs will be disabled, to prevent the possibility of another automatic switch-over happening before such time the DAPS operator decides it is safe to do so. To reenale automatic switch-overs explicitly, the following must be entered from the online command interface:

```
EAS   or
UPDATE W_ML_AUSWEN Y
```

Even when automatic switch-overs are disabled, the DAPS operator can still command a manual switch-over. It goes without saying that no switch-over can be initiated if there is no "hot" backup computer available.

6.2.1 Manual Switch-overs

Manual switch-overs can be initiated only by the DAPS operator, at his / her discretion, for reasons such as suspected system malfunction on the current computer or local hardware, scheduled maintenance, development or testing activities. Since any switch-over will result in some disruption, the operator is advised to monitor system activity, prior to initiating a switch-over, and delay it if it is not absolutely critical. Activities requiring special consideration are:

- a. Ongoing archiving operations;
- b. Ongoing daily or monthly report generation activities;
- c. Disk synchronization in progress from a previous failure.

When in doubt, it is best to use the mail mechanism to contact the affected user(s). At a minimum, the operator should use the bulletin facility to warn all DAPS users and the manager of the planned switch-over.

A manual switch-over can be initiated in a number of ways:

- a. From the DAPS online command interface:

The operator has to enter the SWITCH command, followed by a confirmation (Y for Yes); This is the preferred approach, since there will be a record, in the Event Log, of the exact time the manual switch-over was commanded.

- b. From the system console of the "primary" DAPS computer:

The operator has to enter the following:

```
) SUPERUSER ON  
) :UDD:DAPS:OPR:SWITCH_DAPS
```

This method can be used if there is no DAPS online command interface program already running, and a manual switch-over is required urgently.

- c. From the system console of the "backup" DAPS computer:

The operator has to enter the following:

```
) SUPERUSER ON  
) :UDD:DAPS:OPR:SWITCH_DAPS
```

This method should be used if and only if the first two methods can not be used, e.g., the current "primary" computer is down and automatic switch-overs are disabled. It will prompt the DAPS operator to "release" the mirrored disks from the "primary" before proceeding.

When a manual switch-over is initiated by the DAPS operator, most processes, and all users running on the current "primary" computer will be immediately terminated, with the exception of select few "protected" processes (e.g, the front-end processor and the watchdog). All consoles, printers, and most network functions will be disabled. Finally, the mirrored, dual-ported disks will be "released" from the "primary" computer. All these happen before the "backup" computer takes over and starts the initializations described in the previous section.

It is essential that the mirrored disks be "released" before the "backup" computer takes over. This is always the case with manual switch-overs which are initiated from the "primary" computer (methods a and b).

When a manual switch-over is initiated from the "backup" computer (method c), the DAPS operator is prompted to "release" the disks manually (unless the "primary" is already halted).

Refer to Section 6.3.2 for a description of how to release the mirrored disks.

6.2.2 Automatic Switch-overs

Automatic switch-overs are initiated when the watchdog process running on the "backup" computer detects a "failure", and only if automatic switch-overs are enabled. Once the failure is detected, the "backup" system indicates to the "primary" that it will take over, then waits for "n" number of seconds, to give the "primary" a chance to terminate processes and "release" the mirrored disks, if that is at all possible. The "primary" computer will also get additional notification of a switch-in-progress when the Fall- back switch gets commanded by the "backup" computer, at the start of the switch-over scenario.

The actual initializations performed by the "backup" computer during the switch-over process are identical to the steps performed during a manual switch-over. In both cases, at the end of the switch-over scenario, automatic switch-overs are disabled.

Automatic switch-overs are triggered by the contents or the absence of the "watchdog" messages exchanged periodically between the "primary" and "backup" computers. These messages contain the "alive" timers for the front-end and real-time software.

The "backup" computer will consider the "primary" is failing, if either one or both of the following conditions are true:

- a. The "alive" timer for the Front-end process has not updated for "n" consecutive clock ticks (20 seconds);
- b. The "alive" timer for the Real-time process has not updated for "n" consecutive clock ticks (20 seconds);

There may be several reasons for the "alive" timer(s) not to update, and some of these are indistinguishable as far as the Watchdog process on the "backup" is concerned:

- a. The "primary" computer may be dead;
- b. The Watchdog process on the "primary" computer may be dead;
- c. Both the LAN and the RS232 links may be down;
- d. The Front-End or the Real-time processes on the "primary" computer may be dead, or may have detected an internal failure.

The old "primary" computer may not always realize a switch-over has taken place and "release" the global mirrored disks in an orderly manner, before the new "backup" machine initializes them. This is certainly a possibility for the first two cases. Since there is no "real" problem unless both machines attempt to access the global disks concurrently, only the case of a watchdog failure should be of concern.

Under rare circumstances when the mirrored disks are not "released" in time during a switch-over, the initialization process on the new "backup" computer may fail, and thus require manual intervention from a DAPS operator. Signs of the switch-over failing can be detected from the messages on the system console, but more definitely, when the DAPS online command interface does not start up within a reasonable amount of time, or if it comes up with the top line of the CRT display flashing intermittently. In such cases, the DAPS operator should:

- a. Determine the status of the mirrored disks on the old "primary" computer:

From the system console of the old "primary", type:

```
FI/AS/S/TY=LDU :+
```

- b. If either MIRROR1 or MIRROR2 still appear allocated, he or she must release the disks manually:

```
) SUPERUSER ON
*) DIR :
*) RELEASE MIRROR1
*) RELEASE MIRROR2
```

If the manual release is not successful, the operator may wish to terminate processes selectively, and retry, or under extreme cases, halt and reset the CPU. In the latter case, the old "primary" will need to be rebooted, and FIXUP will be required on the local disks.

- c. Once the disks are released on the old "primary", the operator should terminate any real-time processes that may have already started on the new "primary", and start over again:

From the system console of the new "primary", enter:

```
) SUPERUSER ON
*) TERM DAPS_RT
*) :UDD:DAPS:OPR:INIT_DAPS
```

6.2.3 Starting a Failed System

6.2.3.1 Fixing up System and Local Disks

A DAPS computer that has failed or has been terminated manually by the operator (HALT or RESET via the system console), needs to be restarted, as described in Section 3.7.1.1. However, before AOS/VS can be brought up, the system disk (DPJ0) and the local disk (DPJ1) need to be "fixed" up, using the stand-alone FIXUP utility. From the system console of the failing machine, the DAPS operator must enter:

- a. A request to FIXUP DPJ0 (device code 24);
b. A request to FIXUP DPJ1 (device code 24).

The two requests can be queued for sequential execution.

6.2.3.2 Starting Printers, Queues and Select Network Functions

After any switch-over, whether manual or automatic, some of the system processes that were terminated during the switch-over need to be manually started up again. This can be done from the system console of the old "primary":

```
) SUPERUSER ON
*) :UDD:DAPS:OPR:START_NLB
```

This procedure starts up the line printer and batch queues, and select network functions that support virtual terminals, and file transfers.

6.2.3.3 Mirrored Disk Recovery

The two mirrored disk pairs, MIRROR1 and MIRROR2, are normally brought up as synchronized disk pairs, at DAPS initialization time or after a switch-over, through the CLI macros provided for that purpose:

```
INIT @DPJ10!@DPJ11 (to bring up MIRROR1)
INIT @DPJ20!@DPJ21 (to bring up MIRROR2)
```

If the disk units for a given pair were not previously synchronized, the above commands attempting to initialize them as a mirrored pair will fail. In such cases, the initialization or switch-over procedures automatically perform the following steps, for each mirrored pair, as necessary:

- a. Perform FIXUP on the master copy of each mirrored pair.
- b. Start the master copy of each mirrored pair by itself:

```
INIT/NOMIRROR @DPJ10 (for MIRROR1)
INIT/NOMIRROR @DPJ20 (for MIRROR2)
```

- c. Bring up the secondary (slave) unit, and start synchronizing:

```
MIRROR/FORCESYNC MIRROR1 @DPJ11
MIRROR/FORCESYNC MIRROR2 @DPJ21
```

This synchronization process can take up to three-and-a half hours for a 592 Mbyte disk. While the synchronization is going on, normal system activity does, too: the system writes to both disks, but reads only from the "good" (master) disk.

When the synchronization is done, the system sends a message to the system console:

```
LDU image 'DPJxx' of the LDU named "MIRRORx" is now synchronized
```

The progress of disk mirroring operations can be monitored by using the MIRRORINFO utility from the system console of the computer where the disks are mounted:

```
X MIRRORINFO/ST=:SYSGEN:DAPS.ST or
MIRINF
```

This utility will show the state of a mirrored pair (synchronized, broken, or in-progress). It will also show the disk units used as the master (primary) and slave (secondary).

Mirroring will be broken for a given Logical Disk Unit (LDU) when the corresponding disk pair is released via CLI:

```
) SUPERUSER ON
*) DIR :
*) RELEASE MIRROR1
*) RELEASE MIRROR2
```

A broken pair will require resynchronization all over again if the LDU were released before synchronization had completed. This is why it is important to postpone manual switch-overs, if possible, whenever mirroring is in progress.

A synchronized pair will also require synchronization if the LDU were not released normally due to system failure.

Mirroring will also be broken if a hardware failure were detected on either disk unit. There are three possibilities:

- a. If the units were already synchronized, normal disk activities will proceed with the "good" disk (either primary or secondary).
- b. If synchronization was in progress, and the hardware failure is on the secondary (slave) unit, normal disk activities will proceed with the "good" primary disk.
- c. If synchronization was in progress, and the hardware failure is on the primary unit, we have a problem: The contents of the LDU need to be restored, since both disk units are corrupted / broken at this point. Refer to the DAPS Program Maintenance Manual for a description of global disk file restoration procedures.

A "broken" disk unit can be taken off-line, fixed or reformatted via the disk hardware formatter, and put back in service. The hardware reformatting must be performed from the "backup" computer. Once on-line, the broken unit can be synchronized with the other unit, using the MIRROR command:

MIRROR/FORCESYNC MIRRORx @DPJxy

This would make the "broken" unit temporarily the slave (secondary) copy during the ensuing synchronization. If the unit had previously been the master (primary) unit, it is best to redefine the master / slave (primary/secondary) relationships permanently for this LDU, in case synchronization (mirroring) were halted prematurely and had to be restarted, since the initialization / switch-over macros will assume the broken unit is still the master copy and the good unit is the secondary image. This reformatting should be done before initiating the mirroring operation, from the system console:

- a. The DAPS real-time software and all operator, manager and dial-in online software must be terminated, and the mirrored disks must be released:

```
) SUPERUSER ON
*) :UDD:DAPS:OPR:RELEASE_DAPS
```

- b. The LDU in question must be partially reformatted:

```
*) DIR :
*) X DFMTR
Disk Unit Name: DPJxx ! DPJyy where xx is the primary (preferred) unit yy is the broken unit
Do you want to continue?> Y
... Take defaults ...
```

Done

- c. The DAPS real-time software may now be restarted:

```
*) :UDD:DAPS:OPR:INIT_DAPS
```

Notice that real-time and on-line functions will be suspended only for the brief period of partial reformatting. The front-end ingest functions will not be affected at all.

6.3 Shutdown Procedures

This section describes procedures for shutting down the DAPS system if necessary.

6.3.1 Halting Real-time DAPS

Under normal conditions, if the real-time DAPS operations need to be temporarily halted on a given DAPS computer, it is best to manually switch-over. However, under some circumstances, when a switch-over is not desired, a procedure has been provided to "halt" DAPS real-time software temporarily. For example, when routine file / program maintenance activities have to be performed for few minutes that could not be carried out with the real-time programs running:

From the DAPS system console, enter:

```
) SUPERUSER ON  
*) :UDD:DAPS:OPR:HALT_DAPS
```

Notice that the HALT_DAPS program automatically disables automatic-switchovers. It also terminates all processes that would be normally terminated during a switch-over. Halting DAPS real-time functions does not affect the front-end ingest operations.

To resume the DAPS real-time operations, enter:

```
*) :UDD:DAPS:OPR:RESUME_DAPS
```

6.3.2 Halting Real-time DAPS and Releasing the Mirrored Disks

A separate procedure has been provided to halt real-time DAPS operations and release the dual-ported mirrored disks at the same time. This procedure has to be used when the global disks need to be released for maintenance purposes. For example, in order to take a mirrored disk offline, the mirrored pair has to be broken, by releasing the appropriate LDU.

From the DAPS system console, enter:

```
) SUPERUSER ON  
*) :UDD:DAPS:OPR:RELEASE_DAPS
```

Notice that the RELEASE_DAPS program automatically disables automatic-switchovers. It also terminates all processes that would be normally terminated during a switch-over. Releasing the global disks does not affect the DAPS front_end ingest functions.

Once the mirrored disks are released, DAPS real-time operations can be resumed on either DAPS computer that is already in "hot" backup mode. To do this, one has to enter the following from either system console:

```
*) :UDD:DAPS:OPR:INIT_DAPS
```

6.3.3 Shutting Down AOS/VS

The final step in bringing down the operating system on a DAPS computer, presumably after real-time operations have already been switched-over to the other machine, is to sign off from the system console, by entering:

BYE

and responding affirmatively (Y) to the prompts. This will terminate all remaining processes and the AOS/VS itself, and finally halt the CPU.

APPENDIX A

SUMMARY OF DAPS OPERATOR/MANAGER COMMAND LIST

AND

DAPS USER COMMAND LIST

COMMAND FORMATS FOR OPERATOR/MANAGER

| | | | |
|----------------------|------------------------------|-----------------------|-------|
| DISPLAY | page_name | [parameter..] | // OM |
| PRINT | page_name | [parameter..] | // OM |
| | | | |
| CONSOLE_PARMs | console_id | | |
| CHANNEL_PARMs | channel_id | | |
| DEMOD_DRAWER | drawer | | |
| DEMOD_SLOT | drawer slot | | |
| DIALIN_PARMs | | | |
| DOMSAT_PARMs | | | |
| EVENT | | | |
| NMC_PARMs | | | |
| QM_PARMs | | | |
| PLATFORM_PARMs | platform_id | | |
| USER_PARMs | user_id | | |
| TT_PARMs | tt_id | | |
| CHANNEL_STATS | channel_id | | |
| SYSTEM_UMMARY | | | |
| CHANNEL_SUMMARY | | | |
| DEMOD_SUMMARY | | | |
| TEST_SUMMARY | | | |
| QUEUE | queue_name | | |
| CHANNEL_SCHEDULE | channel_id [since] [until] | | |
| LOG | [since] [until] [types] | | |
| HARDWARE_STATUS | component_id component_no | | |
| MAIL | [since] [until] | | |
| BULLETIN | [since] [until] | | |
| ALARM | [since] [until] [types] | | |
| NETWORK_LIST | user_id list_id | | |
| RADIO_DESCRIPTION | [manuf_id model_id] | | |
| PLATFORM_SUMMARY | user_id | | |
| MESSAGE_FILE ALL | [since] [until] [types] | | |
| PLATFORM_ID | platform_id | (see above) | |
| CHANNEL_ID | channel_id | (see above) | |
| LIST_ID | user_id list_id | (see above) | |
| LIST_CHANNEL | user_id list_id channel_id & | (see above) | |
| CHANNEL_ACTIVITY ALL | [since] [until] [types] | | |
| PLATFORM_ID | platform_id | (see above) | |
| CHANNEL_ID | channel_id | (see above) | |
| LIST_ID | user_id list_id | (see above) | |
| LIST_CHANNEL | user_id list_id channel_id & | (see above) | |
| PLATFORM_CHANGES | [since] [until] | | |
| | | | |
| UPDATE | parameter=value | | |
| | | | |
| CHANNEL | channel_id | parameter=value.. END | // OM |
| DEMOD_DRAWER | drawer | parameter=value.. END | // O |
| DEMOD_SLOT | drawer slot | parameter=value.. END | // O |
| PLATFORM | platform_id | parameter=value.. END | // OM |
| USER | user_id | parameter=value.. END | // M |
| HARDWARE_STATUS | component_id component_no | parameter=value. | // O |

COMMAND FORMATS FOR OPERATOR/MANAGER (CONT)

| | | | |
|-------------|--|---|--|
| ADD | PLATFORM USER NETWORK_LIST HARDWARE_STATUS CHANNEL | platform_id user_id user_id list_id platform_id.. component_id component_no parameter=value.. & END channel_id parameter=value.. END | parameter=value.. END // parameter=value.. END // M // OM // O END |
| DELETE | PLATFORM USER NETWORK_LIST ALL HARDWARE_STATUS MAIL ALL CHANNEL | platform_id user_id user_id list_id platform_id.. component_id component_no time.. channel_id | // M // M // OM // OM // O //OM //OM |
| SEND MAIL | BULLETIN ALL | user_id [file_name] platform_id text | // OM // OM |
| INTERROGATE | | platform_id [retry] | // O |
| COMMAND | | platform_id cmd_word[retry] | // O |
| TEST | CHANNEL NMC count DOMSAT count | channel_id tt_id text preamble channel_id tt_id text preamble channel_id tt_id text preamble | // O // O // O |
| FLUSH | IME IMW TT1 TT2 BT1 BT2 DOMSAT NMC [time] | | // O // O // O // O // O // O // O // O |
| SWITCH N | | | // O |
| ACK | | initials | // O |
| SUBMIT | | file_name | // OM |
| RETRANSMIT | ALL PLATFORM_ID CHANNEL_ID LIST_ID LIST_CHANNEL | [since] [until] platform_id [since] [until] channel_id [since] [until] user_id list_id [since] [until] user_id list_id channel_id [since] [until] | // O // O // O // O // O |
| SNAP | | | // OM |

COMMAND FORMATS FOR OPERATOR/MANAGER (CONT.)

| | | |
|-----------------------|------------------|--------------|
| FORWARD | | // OM |
| BACKWARD | | // OM |
| ERASE | | // OM |
| [EXECUTE] | cmd_file | // OM |
| WAIT [seconds] | | // OM |
| GO | | // OM |
| KILL | | // OM |
| HELP | [command] | // OM |
| BYE | | // OM |

COMMAND FORMATS FOR DIAL-IN USERS

| | | | |
|--------------------|--------------------------|-----------------------------------|-------------------------|
| DISPLAY | page_name | [parameter..] | |
| | TYPE | | |
| | PLATFORM_PARMS | platform_id | |
| | PLATFORM_CHANGES | [since] [until] | |
| | USER_PARMS | | |
| | MAIL | [since] [until] | |
| | BULLETIN | [since] [until] | |
| | NETWORK_LIST | list_id | |
| | RADIO_DESCRIPTION | [manuf_id model_id] | |
| | PLATFORM_SUMMARY | | |
| | MESSAGE_FILE PLATFORM_ID | platform_id | [since] [until] [types] |
| | LIST_ID | list_id | [since] [until] [types] |
| | LIST_CHANNEL | list_id channel_id | [since] [until] [types] |
| UPDATE | PLATFORM | platform_id parameter=value.. END | |
| | USER | parameter=value.. END | |
| ADD | NETWORK_LIST | list_id platform_id.. | |
| DELETE | NETWORK_LIST | list_id platform_id.. | |
| | | list_id ALL | |
| MAIL | | time. | |
| | ALL | | |
| SEND MAIL | | user_id | |
| INTERROGATE | | platform_id [retry] | |
| COMMAND | | platform_id cmd_word [retry] | |
| SUBMIT | | | |
| DOWNLOAD | PLATFORM | platform_id | |
| | USER | | |
| | NETWORK_LIST | list_id | |
| | MESSAGE_FILE PLATFORM_ID | platform_id | [since] [until] [types] |
| | LIST_ID | list_id | [since] [until] [types] |
| | LIST_CHANNEL | list_id channel_id | [since] [until] [types] |
| RETRANSMIT | PLATFORM_ID | platform_id | [since] [until] |
| | LIST_ID | list_id | [since] [until] |
| | LIST_CHANNEL | list_id channel_id | [since] [until] |
| FORWARD | | | |
| BACKWARD | | | |
| HELP | [command] | | |
| TIME | | | |
| BYE | | | |

COMMAND FORMATS FOR BATCH INPUT

| | | | |
|--------|--------------|-----------------------------------|--------|
| UPDATE | PLATFORM | platform_id parameter=value.. END | // OMU |
| | USER | user_id parameter=value.. END | // MU |
| | CHANNEL | channel_id parameter=value.. END | // OM |
| ADD | PLATFORM | platform_id parameter=value.. END | // M |
| | USER | user_id parameter=value.. END | // M |
| | CHANNEL | channel_id parameter=value.. END | // OM |
| | NETWORK_LIST | user_id list_id platform_id.. | // OMU |
| DELETE | NETWORK_LIST | user_id list_id platform_id.. | // OMU |
| | | user_id list_id ALL | |
| BYE | | | |

APPENDIX B

DAPS COMMANDS IN DETAIL

COMMAND SUMMARY

The following table presents the DAPS commands as they are grouped by functionality. The following sections present individual DAPS commands in detail.

Note - the following documentation conventions are used in the command syntax portion of the individual command descriptions:

Command keywords and command argument keywords are in uppercase.

Example: DISPLAY MAIL

Required arguments are in lowercase.

Example: DISPLAY PLATFORM_PARMS platform_id

Optional arguments are in lowercase and enclosed in brackets.

Example: DISPLAY MAIL [since] [until]

Arguments which may be entered one or more times are followed by two periods (..).

Example: ADD NETWORK_LIST user_id list_id platform_id..

DAPS COMMAND SUMMARY

SYSTEM CONFIGURATION CONTROL COMMANDS:

| | | |
|---------|------------------|--|
| DISPLAY | CONSOLE_PARMS | !Display information about current system configuration. |
| PRINT | CHANNEL_PARMS | |
| | SYSTEM_SUMMARY | |
| | DEMODO_DRAWER | |
| | DEMODO_SLOT | |
| | DIALIN_PARMS | |
| | DOMSAT_PARMS | |
| | NMC_PARMS | |
| | QM_PARMS | |
| | TT_PARMS | |
| | CHANNEL_SUMMARY | |
| | DEMODO_SUMMARY | |
| | TEST_SUMMARY | |
| | QUEUE | |
| | CHANNEL_SCHEDULE | |
| | CHANNEL_STATS | |
| | LOG | |
| | HARDWARE_STATUS | |
| | ALARM | |
| ADD | CHANNEL | !Add a new channel description. |
| DELETE | CHANNEL | !Delete a channel description. |
| UPDATE | CHANNEL | !Modify parameters affecting system operation |
| | DEMODO_DRAWER | |
| | DEMODO_SLOT | |
| | HARDWARE_STATUS | <system parameter> |
| ACK | | !Acknowledge an alarm. |
| TEST | | !Test DAPS interfaces. |
| FLUSH | | !Flush DAPS queues. |
| SWITCH | | !Switch primary systems. |

MESSAGE RETRIEVAL COMMANDS:

| | | |
|------------|------------------|---|
| DISPLAY | MESSAGE_FILE | !Displays DCP messages received by the DAPS. |
| PRINT | CHANNEL_ACTIVITY | |
| RETRANSMIT | | !Initiates retransmission of messages via DOMSAT. |

USER DBMS MAINTENANCE COMMANDS:

| | | |
|---------|----------------|---------------------------------------|
| DISPLAY | PLATFORM_PARMS | !Display entries in DAPS DBMS tables. |
|---------|----------------|---------------------------------------|

DAPS COMMAND SUMMARY (CONT.)

**PRINT USER_PARMs
 NETWORK_LIST
 RADIO_DESCRIPTION
 PLATFORM_CHANGES**

**ADD PLATFORM !Add new entries to DAPS DBMS.
 USER
 NETWORK_LIST**

UPDATE PLATFORM !Update entries in DAPS DBMS USER tables.

**DELETE PLATFORM !Delete entries DAPS DBMS.
 USER
 NETWORK_LIST**

**SUBMIT !Submit DAPS DBMS maintenance
 ! commands for batch processing.**

COMMUNICATION COMMANDS:

**SEND MAIL !Send mail and bulletins.
 BULLETIN**

**DISPLAY MAIL !Display mail and bulletins.
PRINT BULLETIN**

DELETE MAIL !Delete mail.

PLATFORM COMMAND/INTERROGATION COMMANDS:

INTERROGATE !Interrogate a platform.

COMMAND !Command a platform.

USER MANAGEMENT/REPORT COMMANDS:

**DISPLAY PLATFORM_SUMMARY !Generate various displays pertaining to users.
 RADIO_DESCRIPTION**

COMMAND FILE EXECUTION COMMANDS:

[EXECUTE] !Initiate command file execution

GO !Reactivate a waiting command file.

KILL !Terminate execution of a waiting command file.

WAIT !Cause command file execution to pause.

GENERAL COMMANDS:

FORWARD

!Display the next page in a multi-page display.

BACKWARD

!Display the previous page in a DAPS multi-page display.

SNAP

!Snap the current contents of screen to a printer.

HELP

!Display a help screen.

BYE

!Sign off the DAPS system.

ACK Command

SYNTAX:

ACK initials

DESCRIPTION:

The ACK command is used to acknowledge the latest alarm. Alarms are displayed on the 3 bottom line of the CRT in reverse video. Acknowledged alarms are displayed in normal video. Each alarm must be acknowledged individually.

ARGUMENTS:

initials - operators initials

EXAMPLES:

ACK WFD ! Acknowledge the current alarm

ADD Command

SYNTAX:

ADD table_name arguments

DESCRIPTION:

The ADD command is used to add new entries to various DAPS DBMS tables.

ARGUMENTS:

table_name - keyword indicating DAPS table to be added to. Valid table names are:

| | |
|------------------------|---------------------------------------|
| CHANNEL | - Channel Description Table |
| HARDWARE_STATUS | - System Hardware Status Table |
| NETWORK_LIST | - User Network List |
| PLATFORM | - Platform Description Table |
| USER | - User Description Table |

arguments - see following sections for specific arguments.

EXAMPLES:

See following sections for specific examples for additions to each table.

ADD CHANNEL Command

SYNTAX:

ADD CHANNEL channel_id parameter=value.. END

DESCRIPTION:

The ADD CHANNEL command is used to add a new channel description to the Channel Description Table (CDT).

ARGUMENTS:

CHANNEL - (short form: CDT) keyword indicating an addition to the Channel Description Table.

channel_id - channel number and GOES spacecraft assignment (example: 123E)

parameter=value - pairs of parameter keywords and the values to be assigned to the parameters. See Appendix C for a description of Channel Description Table parameters.

ED - keyword indicating end of the command.

EXAMPLES:

ADD CHANNEL 151E & Add channel description for channel 151E

CHAN_TYPE = R & Random channel

DATA_RATE = 100 & 100 baud

AUTO_TEST = Y & Auto-testing enabled

AUTO_TTID = 1 & Test transmitter 1

MAX_TESTS = 2 & Maximum test retries = 2

CAL_OPTION = D & Calibration disabled

BLK_ENABLED = N & Channel blocking disabled

END

ADD HARDWARE_STATUS Command

SYNTAX:

ADD HARDWARE_STATUS component_id component_no parameter=value.. END

DESCRIPTION:

The ADD HARDWARE_STATUS command is used to make a new entry to the System Hardware Status Table in the DAPS DBMS.

ARGUMENTS:

HARDWARE_STATUS - (short form: SHS) keyword indicating an addition to the System Hardware Status Table.

component_id - unique 2 character hardware component identifier. See System Hardware Status Table description in Appendix C

component_no - component number. See System Hardware Status Table description in Appendix C

parameter=value - pairs of parameter keywords and values to be assigned to the parameters. See System Hardware Status Table in Appendix C

END - keyword indicating end of the command.

EXAMPLES:

```
ADD HARDWARE_STATUS PN 3      & Add description for printer
COMPONENT_TYPE = I           & Internal
COMPONENT_STAT = S           & Spare
COMPONENT_LOC = DS           & DAPS
MANUFACTURER="DATA GENERAL" &
MODEL_NO = "5956 LP-A"       &
SERIAL_NO = 156A327EF         &
END
```


ADD NETWORK_LIST Command

SYNTAX:

ADD NETWORK_LIST user_id list_id platform_id..

DESCRIPTION:

The ADD NETWORK_LIST command provides a means to add one or more platforms to a user's network list. Network lists may be used as a selection criteria in displaying messages and requesting the retransmission of messages over DOMSAT.

ARGUMENTS:

NETWORK_LIST - (short form: UNL) keyword indicating the addition of platform(s) to a user's network list.

user_id - six (6) character user identifier (example: NWSHUR).

list_id - indicates a network list number (1 - 5).

platform_id - specifies a valid DCP address.

EXAMPLES:

ADD NETWORK_LIST CEMRO3 1 ABCD0123 ABCD0124 !Add platforms ABCD0123 and ABCD0124 to network list 1 of user CEMRO3

AD UNL USRWSS 5 A1B2C3D4 ! Add platform A1B2C3D4 to network list 5 of user USRWSS

ADD PLATFORM Command

SYNTAX:

ADD PLATFORM platform_id parameter=value.. END

DESCRIPTION:

The ADD PLATFORM command is used to add a new platform description to the Platform Description Table (PDT).

ARGUMENTS:

PLATFORM - (short form: **PDT**) keyword indicating an addition to the Platform Description Table.

| | | |
|------------------------|---|---|
| platform_id | - | unique DCP address. |
| parameter=value | - | pairs of parameter keywords and the values to be assigned to the parameters. See Appendix C for a description of Platform Description Table parameters. |
| END | - | keyword indicating end of the command. |

EXAMPLES:

| | |
|-------------------------------|--|
| ADD PLATFORM 324AC28A | & Add platform description for 324ACA8A |
| OWNER_ID = BLM001 | & |
| PRIME_TYPE = S | & Self-timed DCP |
| PRIME_CHAN = 38 | & Channel 38 |
| PRIME_SCID = W | & GOES West |
| FIRST_XMT = 011300 | & First transmission - 01:13:00 |
| XMT_PERIOD = 030000 | & Transmission period - 3:00:00 |
| XMT_WINDOW = 0100 | & Transmission window - 60 secs. |
| XMT_RATE = 100 | & 100 baud |
| DATA_FORMAT = A | & ASCII data format |
| NMC_FLAG = N | & Not to NMC |
| ASSIGN_DATE = 19810804 | & |
| END | |

ADD USER Command

SYNTAX:

ADD USER user_id parameter=value.. END

DESCRIPTION:

The ADD USER command is used to add a new user description to the User Description Table (UDT).

ARGUMENTS:

| | | |
|-----------------|---|---|
| USER | - | (short form: UDT) keyword indicating an addition to the User Description Table. |
| user_id | - | six (6) character user identifier |
| parameter=value | - | pairs of parameter keywords and the values to be assigned to the parameters. See Appendix C for a description of User Description Table parameters. |
| END | - | keyword indicating end of the command. |

EXAMPLES:

| | |
|---|------------------------------------|
| ADD USER SRA12 | & Add description for user, USRA12 |
| USER_TYPE = S | & |
| USER_NAME = "STATE DEPT ENVIRONMENT" | & |
| PARENT_NAME = "PARENT ORGANIZATION" | & |
| MAJOR_NAME = "MAJOR ORGANIZATION" | & |
| MOA_ID = "STATE ENVIRONMENT" | & |
| OPR_NAME_LAST = SMITH | & |
| OPR_NAME_FIRST = "MR. DAVID L." | & |
| OPR_ADDR_LINE1 = "10TH FLOOR, MARKET PLACE" | & |
| OPR_ADDR_LINE2 = "1000 FIRST STREET" | & |
| OPR_CITY = BANGOR | & |
| OPR_STATE_PROV = MAINE | & |
| OPR_ZIP_CODE = 1234567 | & |
| OPR_PHONE = "(123) 321-1234" | & |
| PRIME_MEDIUM = T | & |
| END | |

BACKWARD Command

SYNTAX:

BACKWARD

DESCRIPTION:

The BACKWARD commands is used to display the previous page (18 lines) of a DAPS multi-page display. The up arrow key on the function keypad provides the same capability.

ARGUMENTS:

None

EXAMPLES:

BACKWARD

BA

BYE Command

SYNTAX:

BYE

DESCRIPTION:

The BYE command is used to sign-off the DAPS system. The operator will be prompted for confirmation of the signoff before the sign-off occurs.

ARGUMENTS:

None

EXAMPLES:

BYE

BY

COMMAND Command

SYNTAX:

COMMAND platform_id cmd_word [retry]

DESCRIPTION:

The COMMAND command may be used to command a specific interrogate type platform.

ARGUMENTS:

platform_id - DCP address of the platform to be commanded.

cmd_word - command word to be sent to the DCP. The command word may have a value of 1 - 4096 (decimal).

retry - optional retry count to be used if DCP does not reply.

EXAMPLES:

COMMAND ABCD0123 0003 ! Send command word 0003 to DCP ABCD0123

C ABCD0123 0003 2 ! Send command word 0003 to DCP ABCD0123, retry 2 times if necessary

DELETE Command

SYNTAX:

DELETE table_name arguments

DESCRIPTION:

The **DELETE** command may be used to delete entries from various DAPS DBMS tables.

ARGUMENTS:

- keyword indicating DAPS table to be deleted from. Valid table names are:

| | |
|------------------------|--------------------------------|
| CHANNEL | - Channel Description Table |
| HARDWARE_STATUS | - System Hardware Status Table |
| MAIL | - Mail received |
| NETWORK_LIST | - User Network List |
| PLATFORM | - Platform Description Table |
| USER | - User Description Table |

arguments - see following sections for specific arguments.

EXAMPLES:

See following sections for specific examples for additions to each table.

DELETE CHANNEL Command

SYNTAX:

DELETE CHANNEL channel_id

DESCRIPTION:

The **DELETE CHANNEL** command is used to delete an existing channel description entry from the Channel Description Table (CDT).

Note - If platforms are currently assigned to this channel, a prompt requesting confirmation of the deletion will be output before the CDT entry will be deleted.

ARGUMENTS:

CHANNEL - (short form: CDT) keyword indicating an deletion from the Channel Description Table.

channel_id - channel number and GOES spacecraft assignment (example: 123E)

EXAMPLES:

DELETE CHANNEL 151E ! Delete CDT entry for channel 151E

DEL CDT 151E

DELETE HARDWARE_STATUS Command

SYNTAX:

DELETE HARDWARE_STATUS component_id component_no

DESCRIPTION:

The **DELETE HARDWARE_STATUS** command is used to delete an existing entry from the System Hardware Status Table in the DAPS DBMS.

ARGUMENTS:

| | | |
|------------------------|---|--|
| HARDWARE_STATUS | - | (short form: SHS) keyword indicating an deletion from the System Hardware Status Table. |
| component_id | - | unique 2 character hardware component identifier. See System Hardware Status Table description in Appendix C |
| component_no | - | component number. See System Hardware Status Table description in Appendix C |

EXAMPLES:

DELETE HARDWARE_STATUS PN 3 ! Delete description for printer 3

DEL SHS PN 3

DELETE MAIL Command

SYNTAX:

DELETE MAIL date_time..
ALL

DESCRIPTION:

The **DELETE MAIL** command provides a means for the operator/manager to delete mail that has already been read.

The **date_time** option allows the operator/manager to delete a specific piece of mail.

The **ALL** option deletes all of the operator/manager's mail.

Note that the DAPS system periodically deletes all mail that is greater than 3 days old.

ARGUMENTS:

- MAIL** - (short form: none) keyword indicating the deletion of mail.
- date_time** - specifies the date and time of creation of a specific piece of mail. This date/time is displayed with the mail using the **DISPLAY MAIL** command.
- keyword indicating deletion of all mail currently having been received by the operator/manager.

EXAMPLES:

DELETE MAIL 206/10:52:01 208/16:31:05 ! Deletes the two pieces of mail with the
! dates/times specified.

DEL MAIL ALL ! Deletes all of the mail received.

DELETE NETWORK_LIST Command

SYNTAX:

```
DELETE NETWORK_LIST user_id list_id platform_id..
ALL
```

DESCRIPTION:

The DELETE_NETWORK_LIST command provides a means to delete one or more platforms from a user's network list.

ARGUMENTS:

NETWORK_LIST - (short form: UNL) keyword indicating the deletion of a platform or platforms from a network list.

user_id - six (6) character user identifier.

list_id - indicates the the list that the platform(s) are to be deleted from.
Valid list_id's are 1 to 5.

platform_id - refers to a valid DCP address

ALL - keyword indicating the deletion of all platforms from the specified network list

EXAMPLES:

DELETE NETWORK_LIST USRA01 2 ABCD0123 ABCD4321 **! Delete platforms**
! ABCD0123 and ABCD4321
! from network list 1 of user ! USRA01

DEL UNL USRA01 5 ALL ! Delete all platforms from network list 5 of user USRA01

DELETE PLATFORM Command

SYNTAX:

DELETE PLATFORM platform_id

DESCRIPTION:

The **DELETE PLATFORM** command is used to delete an existing platform description entry from the Platform Description Table (PDT).

Note - Deletion of PDT entries is restricted to the Manager.

ARGUMENTS:

PLATFORM - (short form: PDT keyword indicating an deletion from the Platform Description Table.

platform_id - DCP address of platform to be deleted.

EXAMPLES:

DELETE PLATFORM 324AC28A ! Delete PDT entry for 324AC28A

DEL PDT 324AC28A

DELETE USER Command

SYNTAX:

DELETE USER user_id

DESCRIPTION:

The **DELETE USER** command is used to delete an existing user description entry from the User Description Table (UDT).

Note - Deletion of UDT entries is restricted to the Manager.

ARGUMENTS:

USER - (short form: UDT) keyword indicating an deletion from the User Description Table.

user_id - six (6) character user identifier

EXAMPLES:

DELETE USER USRA12 ! Delete UDT entry for user, USRA12

DEL UDT USRA12

DISPLAY Command

SYNTAX:

DISPLAY display_name [arguments..]

DESCRIPTION:

The **DISPLAY** command is used to generate displays of DAPS system parameters, DBMS table entries, DCP messages, reports, mail and bulletins and log entries.

Displays generated may be multiple pages in length. The **FORWARD** and **BACKWARD** commands may be used to page through the display.

ARGUMENTS:

display_name - keyword indicating the name of the display to be generated. Current display_names are:

ALARM
BULLETIN
CHANNEL_ACTIVITY
CHANNEL_PARMS
CHANNEL_SCHEDULE
CHANNEL_STATS
CHANNEL_SUMMARY
CONSOLE_PARMS
DEMOD_DRAWER
DEMOD_SLOT
DEMOD_SUMMARY
DIALIN_PARMS
DIALIN_SUMMARY
DOMSAT_PARMS
EVENT
HARDWARE_STATUS
LOG
MAIL
MESSAGE_FILE
NETWORK_LIST
NMC_PARMS
PLATFORM_CHANGES
PLATFORM_PARMS
PLATFORM_SUMMARY
QM_PARMS
QUEUE
RADIO_DESCRIPTION
SYSTEM_SUMMARY
TEST_SUMMARY
USER_PARMS
USER_UTILIZATION
WHO

arguments - arguments used to control the content of specific displays. These arguments are described in more detail in the following sections.

EXAMPLES: See following sections

DISPLAY ALARM Command

SYNTAX:

DISPLAY ALARM [since] [until]

DESCRIPTION:

This option of the **DISPLAY** command generates a display of system alarms. Alarms may be selected by time range using optional **since** and **until** arguments.

ARGUMENTS:

ALARM - keyword indicating alarm display.

since - optional time field indicating the beginning of a time range in which to search for alarms. Defaults to time of oldest alarm. See Date/Time Arguments.

until - optional time field indicating the end of a time range in which to search for alarms. Defaults to current time.

See Date/Time Arguments.

EXAMPLES:

DISPLAY ALARM ! Displays all alarms

DI ALARM 299/ ! Displays all alarms occurring between 00:00:00 of day 299 and current time

DI ALARM , 300/08 ! Displays alarms starting with the oldest alarm up to 08:00:00 of day 300

DISPLAY BULLETIN Command

SYNTAX:

DISPLAY BULLETIN [since] [until]

DESCRIPTION:

This option of the **DISPLAY** command generates a display of system bulletins. Bulletins may be selected by time range using optional **since** and **until** arguments.

ARGUMENTS:

BULLETIN - keyword indicating bulletin display.

since - optional time field indicating the beginning of a time range in which to search for bulletins. Defaults to time of oldest bulletin. See **Date/Time Arguments**.

until - optional time field indicating the end of a time range in which to search for bulletins. Defaults to current time. See **Date/Time Arguments**.

EXAMPLES:

DISPLAY BULLETIN **! Displays all bulletins**

DI BULLETIN 299/ **! Displays all bulletins received between 00:00:00 of day 299 and current time**

DI BULLETIN , 300/08 **! Displays bulletins starting with the oldest bulletin up to 08:00:00 of day 300**

DISPLAY CHANNEL_ACTIVITY Command

SYNTAX:

```
DISPLAY CHANNEL_ACTIVITY ALL [since] [until] [types]
    PLATFORM_ID platform_id & [since] [until] [types]
    CHANNEL_ID channel_id & [since] [until] [types]
    LIST_ID user_id list_id & [since] [until] [types]
    LIST_CHANNEL user_id list_id channel_id & [since] [until] [types]
```

DESCRIPTION:

This option of the DISPLAY command generates a display of the header portion of all DCP messages received using the selection criteria supplied. For a detailed explanation of the selection capabilities, see DISPLAY MESSAGE_FILE (which displays the message contents as well as the header).

ARGUMENTS:

See DISPLAY MESSAGE_FILE

EXAMPLES:

See DISPLAY MESSAGE_FILE

DISPLAY CHANNEL_PARMS Command

SYNTAX:

DISPLAY CHANNEL_PARMS channel_id

DESCRIPTION:

The **DISPLAY CHANNEL_PARMS** command is used to display an entry in the Channel Description Table (CDT). Parameters in the CDT are described in Appendix C.

ARGUMENTS:

CHANNEL_PARMS - (short form: CDT) keyword indicting Channel Description Table entry.

channel_id - indicates channel number and GOES spacecraft
assignment (ex. 123E)

EXAMPLES:

DISPLAY CHANNEL_PARMS 151E ! Display CDT entry for 151E

DI CDT 151E

DISPLAY CHANNEL_SCHEDULE Command

SYNTAX:

DISPLAY CHANNEL_SCHEDULE channel_id start_time end_time

DESCRIPTION:

The **DISPLAY CHANNEL_SCHEDULE** command generates a schedule of DCP activity for the specified time range on the specified channel.

ARGUMENTS:

CHANNEL_SCHEDULE - keyword indicating channel schedule display.

start_time - optional parameter specifying start time of a time range to be used. Defaults to 00:00:00.

Note - it may not be possible to display a schedule for a excessively large time range. Use a narrower time range accordingly.

end_time - optional parameter specifying end time of a time range to be used. Defaults to 23:59:59. See note above.

EXAMPLES:

DISPLAY CHANNEL_SCHEDULE 31E 01:10 01:15 ! Display schedule for 31E from 01:10 to 01:15

DI CHANNEL_SCHEDULE 31E , 00:05 ! Display schedule for 31E from 00:00 to 00:05

DISPLAY CHANNEL_STATS Command

SYNTAX:

DISPLAY CHANNEL_STATS channel_id

DESCRIPTION:

The **DISPLAY CHANNEL_STATS** command generates a summary display of statistics for activity of the specified channel.

ARGUMENTS:

CHANNEL_STATS - keyword indicating channel statistics display.

channel_id - specifies channel number and GOES spacecraft assignment (ex. 51E)

EXAMPLES:

DISPLAY CHANNEL_STATS 21E

DI CHANNEL_STATS 2W

DISPLAY CHANNEL_SUMMARY Command

SYNTAX:

DISPLAY CHANNEL_SUMMARY

DESCRIPTION:

The **DISPLAY CHANNEL_SUMMARY** command generates a summary display of channel to demod assignment.

ARGUMENTS:

CHANNEL_SUMMARY - keyword indicating display.

EXAMPLES:

DISPLAY CHANNEL_SUMMARY

DI CHANNEL_SUMMARY

DISPLAY CONSOLE_PARDS Command

SYNTAX:

DISPLAY CONSOLE_PARDS console_number

DESCRIPTION:

The **DISPLAY CONSOLE_PARDS** command generates a display of parameters affecting individual console operation. The parameters listed on this page may be updated through the **UPDATE** command.

ARGUMENTS:

CONSOLE_PARDS - keyword indicating display name.

console_number - console number (1 - 7).

EXAMPLES:

DISPLAY CONSOLE_PARDS 3 ! Display console parameters for console number 3

DI CONSOLE_PARDS 1

DISPLAY DEMOD_DRAWER Command

SYNTAX:

DISPLAY DEMOD_DRAWER drawer

DESCRIPTION:

The **DISPLAY DEMOD_DRAWER** command is used to display parameters controlling the operation of the specified demodulator drawer. The parameters displayed may be modified through the **UPDATE DEMOD_DRAWER** command.

ARGUMENTS:

DEMOD_DRAWER - keyword indicating the demodulator drawer display.

drawer - number of the demodulator drawer.

EXAMPLES:

DISPLAY DEMOD_DRAWER 3 ! Display parameters controlling the operation of demodulator drawer 3

DI DEMOD_DRAWER 3

DISPLAY DEMOD_SUMMARY Command

SYNTAX:

DISPLAY DEMOD_SUMMARY

DESCRIPTION:

The **DISPLAY DEMOD_SUMMARY** command generates a summary display of all demodulator drawer assignments.

ARGUMENTS:

DEMOD_SUMMARY - keyword indicating demodulator summary display.

EXAMPLES:

DISPLAY DEMOD_SUMMARY

DISPLAY DIALIN_PARDS Command

SYNTAX:

DISPLAY DIALIN_PARDS

DESCRIPTION:

The **DISPLAY DIALIN_PARDS** command generates a display of parameters controlling the operation of dialin lines. These parameters may be modified through the **UPDATE** command.

ARGUMENTS:

DIALIN_PARDS - keyword indicating dialin parameters display.

EXAMPLES:

DISPLAY DIALIN_PARDS

DISPLAY DOMSAT_PARMS Command

SYNTAX:

DISPLAY DOMSAT_PARMS

DESCRIPTION:

The **DISPLAY DOMSAT_PARMS** command generates a display of parameters controlling the operation of the DOMSAT interface. These parameters may be modified through the **UPDATE** command.

ARGUMENTS:

DOMSAT_PARMS - keyword indicating the DOMSAT parameters display.

EXAMPLES:

DISPLAY DOMSAT_PARMS

DISPLAY EVENT Command

SYNTAX:

DISPLAY EVENT [types]

DESCRIPTION:

The **DISPLAY EVENT** command is used to initiate a dynamically updated display of DAPS event messages as they are generated and entered into the log. Selection of event messages may be optionally narrowed by type of event message.

ARGUMENTS:

EVENT - keyword indicating event message display.

types - optional character(s) indicating event message types to be displayed. Defaults to all types. Valid types are:

- S** - System related entries
- P** - Platform related entries
- C** - Channel related entries
- L** - Line related entries
- O** - Operator command related entries
- M** - Manager command related entries
- U** - User command related entries
- B** - Batch command related entries
- D** - Diagnostic related entries

EXAMPLES:

DISPLAY EVENT **!Display all event messages as they are entered into the log**

DI EVENT SL **! Display all system and line related event messages**

DISPLAY HARDWARE_STATUS Command

SYNTAX:

DISPLAY HARDWARE_STATUS component_id component_no

DESCRIPTION:

The **DISPLAY HARDWARE_STATUS** command generates a status display for the specified system hardware component in the System Hardware Status Table of the DAPS DBMS.

ARGUMENTS:

HARDWARE_STATUS - (short form: SHS) keyword indicating System Hardware Status display.

component_id - 2 character component identifier. See System Hardware Status Table description in Appendix C.

component_no - component number

EXAMPLES:

DISPLAY HARDWARE_STATUS DS 1 ! Display status for 300 S demod

DI SHS DS 1

DISPLAY LOG Command

SYNTAX:

**DISPLAY LOG [since] [until] [types]
[number]**

DESCRIPTION:

The **DISPLAY LOG** command is used to display entries in the DAPS log. Selection of log entries may be narrowed by time range. In addition, selection may be by event type or event number.

ARGUMENTS:

- LOG** - keyword indicating log display.
- since** - optional start time for time range to be used when displaying the log. Defaults to earliest log entry.
- until** - optional end time for time range to be used when displaying the log. Defaults to latest log entry.
- types** - optional character(s) indicating log entry types to be displayed. Defaults to all types. Valid types are:
- S - System related entries
 - P - Platform related entries
 - C - Channel related entries
 - L - Line related entries
 - O - Operator command related entries
 - M - Manager command related entries
 - U - User command related entries
 - B - Batch command related entries
 - D - Diagnostic related entries
- number** - optional number of event message to be selected instead of types

EXAMPLES:

- DISPLAY LOG 153/** !Display log entries from day 153 to current day
- DI LOG , , SL** ! Display all system and line related entries in log
- DI LOG , , 57** ! Display all entries of event message number 57 (Manual Switch) in log

DISPLAY MAIL Command

SYNTAX:

DISPLAY MAIL [since] [until]

DESCRIPTION:

This option of the **DISPLAY** command displays mail sent to the operator/manager. Mail may be selected by time range using the optional **since** and **until** arguments.

ARGUMENTS:

MAIL - keyword indicating mail display.

since - optional time field indicating the beginning of a time range in which to search for mail. Defaults to time of oldest piece of mail. See Date/Time Arguments.
until - optional time field indicating the end of a time range in which to search for mail. Defaults to current time. See Date/Time Arguments.

EXAMPLES:

DISPLAY MAIL ! Displays all mail received

DI MAIL 299/ ! Displays all mail received between 00:00:00 of day 299 and current time

DI MAIL , 300/08 ! Displays mail starting with the oldest piece of mail up to 08:00:00 of DOY 300

DISPLAY MESSAGE_FILE Command

SYNTAX:

| | |
|---|-------------------------|
| DISPLAY MESSAGE_FILE ALL | [since] [until] [types] |
| PLATFORM_ID platform_id & | [since] [until] [types] |
| CHANNEL_ID channel_id & | [since] [until] [types] |
| LIST_ID user_id list_id & | [since] [until] [types] |
| LIST_CHANNEL user_id list_id channel_id & | [since] [until] [types] |

DESCRIPTION:

This option of the DISPLAY command generates a display of DCP messages received using the selection criteria supplied.

The ALL option displays messages received from all platforms.

The PLATFORM_ID option displays all messages received from the specified DCP.

The CHANNEL_ID option displays messages that have been received on the specified channel.

The LIST_ID option selects all messages received from platforms that are included in the specified user network list.

The LIST_CHANNEL option selects all messages received from DCPs that are included in the specified user network list and have been received on the specified channel.

Additional optional selection criteria in the form of time range and type selection may be applied to the options cited above.

ARGUMENTS:

| | |
|--------------|--|
| MESSAGE_FILE | - (short form: MSG) keyword indicating display of DCP messages. |
| PLATFORM_ID | - keyword indicating that message selection is to be by the platform address specified. |
| LIST_ID | - keyword indicating that message selection is to be by platforms contained in the user's network list specified. |
| LIST_CHANNEL | - keyword indicating that message selection is to be by platforms contained in the network list specified but restricted to the channel specified. |
| platform_id | - specifies a particular DCP. |
| list_id | - specifies a network list (1 - 5). |
| channel_id | - specifies a particular channel and GOES spacecraft assignment (ex. 21E or 84W). |
| since | - optional time argument specifying the start time of a time range in which to search for messages. Defaults to time of earliest message received. See Date/Time Arguments. |
| until | - optional time argument specifying the end time of a time range in which to search for messages. Defaults to time of most recent message received. See Date/Time Arguments. |

types - character(s) indicating specific type(s) of messages to be selected. The default is all types.
Valid types are:

| | |
|---|---|
| G | - Good message |
| W | - Message received on wrong channel |
| D | - Message received on multiple channels |
| A | - Message with address errors (correctable) |
| B | - Bad address (not correctable) |
| T | - Message received late/early (time error) |
| U | - Unexpected message |
| M | - Missing message |
| I | - Invalid address (not in PDT) |
| N | - Entry for platform in PDT not complete |
| Q | - Bad quality measurements |
| C | - Test transmission comparison error |
| ? | - Message with parity errors (if this type is requested alone, use quotes to distinguish it from a help request; see example below) |

EXAMPLES:

DISPLAY MESSAGE_FILE ALL 10 10:15 ! Display all message received between 10:00:00 and 10:15:00 of current day

DISPLAY MESSAGE_FILE PLATFORM_ID ABCD0123 ! Display all messages received from DCP ABCD0123

DI MSG CHANNEL_ID 21E 156/ 157/ "?" ! Display all messages with parity errors received on channel 21E between 00:00:00 of day 156 and 00:00:00 of day 157

DI MSG LIST_ID ALBERT 1 260/ ! Display all messages received from platforms included on network list 1 of user ALBERT that have been received after 00:00:00 of DOY 260

DI MSG LIST_CHANNEL CEMRO1 3 2E , , G ! Display all good messages that have been received from platforms included on network list 3 of user CEMRO1 and have been received on channel 21E

DI MSG_FILE LIST_CHANNEL CEMRO1 2 21E 8 12:40 G? !Display good messages and messages with parity
! errors that have been received from platforms
! included on network list 2 of user CEMRO1
and
! have been received on channel 21E between
! 08:00:00 and 12:40:00 of the current day

DISPLAY NETWORK_LIST Command

SYNTAX:

DISPLAY NETWORK_LIST user_id list_id

DESCRIPTION:

This option of the **DISPLAY** command generates a display of platform entries in the User Network List identified by the specified **user_id** and **list_id**.

ARGUMENTS:

NETWORK_LIST - (short form: **UNL**) keyword indicating the user network list display.

user_id - Six (6) character user identifier (ex. **NWSHUR**)

list_id - specifies which network list to display (1-5).

EXAMPLES:

DISPLAY NETWORK_LIST ALBERT 1 ! Displays network list #1 of user ALBERT

DI UNL CEMRO1 3 ! Displays network list #3 of user CEMRO1

DISPLAY NMC_PARMS Command

SYNTAX:

DISPLAY NMC_PARMS

DESCRIPTION:

The **DISPLAY NMC_PARMS** command generates a display of parameters controlling the operation of the NMC interface. These parameters may be modified through the **UPDATE** command.

ARGUMENTS:

NMC_PARMS - keyword indicating NMC parameters display.

EXAMPLES:

DISPLAY NMC_PARMS

DISPLAY PLATFORM_CHANGES Command

SYNTAX:

DISPLAY PLATFORM_CHANGES [since] [until]

DESCRIPTION:

This option of the **DISPLAY** command generates a display of log entries indicating addition, deletion and modification of individual Platform Description Table (PDT) entries. The search of the log may be narrowed by optional time range arguments.

ARGUMENTS:

- | | |
|-------------------------|--|
| PLATFORM_CHANGES | - keyword indicating a display of log entries indicating PDT changes. |
| since | - optional time field indicating the beginning of a time range to be used for searching log entries. Defaults to time of oldest entry. |
| until | - optional time field indicating the end of a time range in which to search for log entries. Defaults to current time. |

EXAMPLES:

- | | |
|---------------------------------|--|
| DISPLAY PLATFORM_CHANGES | ! Display all changes to PDT currently in the log |
| DI PLATFORM_CHANGES 299/ | ! Display all changes to PDT since day 299 |

DISPLAY PLATFORM_PARMS Command

SYNTAX:

DISPLAY PLATFORM_PARMS platform_id

DESCRIPTION:

This option of the **DISPLAY** command generates a display of an entry in the Platform Description Table for the specified platform. Refer to Appendix C for a full description of the parameters displayed.

ARGUMENTS:

PLATFORM_PARMS - (short form: **PDT**) keyword indicating the PDT display.

platform_id - DCP address of the platform to be displayed.

EXAMPLES:

DISPLAY PLATFORM_PARMS ABCD0123 ! Display PDT entry for platform ABCD0123

DI PDT ABCD0123

DISPLAY PLATFORM_SUMMARY Command

SYNTAX:

DISPLAY PLATFORM_SUMMARY user_id [CURRENT]

DESCRIPTION:

This option of the **DISPLAY** command generates a summary display of activity for the previous month for all the DCPs owned by the specified user. The **CURRENT** option allows viewing of platform activity for the current month.

ARGUMENTS:

PLATFORM_SUMMARY - (short form: **PST**) keyword indicating platform summary display.

user_id - six (6) character user identifier (ex. **NWSHUR**)

CURRENT - keyword indicating request is for activity of current month. Defaults to previous month.

EXAMPLES:

DISPLAY PLATFORM_SUMMARY CEMRO1 ! Displays a summary of activity for previous ! month of all
platforms owned by user
! CEMRO1

DI PST CEMRO1 CURRENT ! Displays a summary of activity for current ! month of all
platforms owned by user
! CEMRO1

DISPLAY QM_PARMS Command

SYNTAX:

DISPLAY QM_PARMS

DESCRIPTION:

The **DISPLAY QM_PARMS** command generates a display of parameters controlling the Quality Monitor interface. These parameters may be modified through the **UPDATE** command.

ARGUMENTS:

QM_PARMS - keyword indicating Quality Monitor parameters display.

EXAMPLES:

DISPLAY QM_PARMS

DISPLAY QUEUE Command

SYNTAX:

DISPLAY QUEUE queue_name

DESCRIPTION:

The DISPLAY QUEUE command generates a display of the current contents of the specified DAPS system queue.

ARGUMENTS:

queue_name - name of the DAPS queue to be displayed. Valid queue names are:

| | |
|---------|------------------------------|
| IME | - Interrogate Modulator East |
| IMW | - Interrogate Modulator West |
| TT1 | - Test Transmitter 1 |
| TT2 | - Test Transmitter 2 |
| BT1 | - Block Transmitter 1 |
| BT2 | - Block Transmitter 2 |
| BACKLOG | - DOMSAT Backlog |
| USER | - User retransmit requests |

EXAMPLES:

DISPLAY QUEUE IME ! Display contents of Interrogate Modulator east queue

DI QUEUE TT1 ! Display contents of Test Transmitter 1 queue

DISPLAY RADIO_DESCRIPTION Command

SYNTAX:

DISPLAY RADIO_DESCRIPTION [manufacturer_id model_id]

DESCRIPTION

This option of the DISPLAY command generates a display of information on all currently defined DCP Radio Sets in the Radio Description Table. The optional arguments, manufacturer_id and model_id, may be used to display more detailed information on a particular DCPRS.

ARGUMENTS:

RADIO_DESCRIPTION - (short form: RDT) keyword indicating the display name.

manufacturer - optional arguments specifying the model_id manufacturer and model identifier of a specific DCPRS.
Must be entered as a pair.

EXAMPLES:

DISPLAY RADIO_DESCRIPTION ! Displays information on all
! DCPRS.

DI RDT "DCPRS INC." RS0123 ! Displays information on a
! particular DCPRS.

DISPLAY SYSTEM_SUMMARY Command

SYNTAX:

DISPLAY SYSTEM_SUMMARY

DESCRIPTION:

The **DISPLAY SYSTEM_SUMMARY** command generates a summary display of statistics concerning message dissemination.

ARGUMENTS:

SYSTEM_SUMMARY - keyword indicating system dissemination summary display.

EXAMPLES:

DISPLAY SYSTEM_SUMMARY

DISPLAY TEST_SUMMARY Command

SYNTAX:

DISPLAY TEST_SUMMARY

DESCRIPTION:

The **DISPLAY TEST_SUMMARY** command generates a summary display of results of all channel tests.

ARGUMENTS:

TEST_SUMMARY - keyword indicating channel test summary display.

EXAMPLES:

DISPLAY TEST_SUMMARY

DISPLAY USER_PARMS Command

SYNTAX:

DISPLAY USER_PARMS user_id

DESCRIPTION:

This option of the **DISPLAY** command generates a display of the specified user's entry in the User Description Table of the DAPS DBMS. Refer to Appendix C for a full description of the parameters displayed.

ARGUMENTS:

USER_PARMS - (short form: **UDT**) keyword indicating the display name.

user_id - 6 character user identifier (ex. **CEMRO1**)

EXAMPLES:

DISPLAY USER_PARMS CEMRO1 ! Display PDT entry for user CEMRO1

DI UDT CEMRO1

DISPLAY USER_UTILIZATION Command

SYNTAX:

DISPLAY USER_UTILIZATION user_id

DESCRIPTION:

This option of the **DISPLAY** command generates a display of the specified user's channel utilization for the previous month.

ARGUMENTS:

USER_UTILIZATION - keyword indicating the display name.

user_id - 6 character user identifier (ex. CEMRO1)

EXAMPLES:

DISPLAY USER_UTILIZATION CEMRO1

ERASE Command

SYNTAX:

ERASE

DESCRIPTION:

The ERASE command may be used to clear the display portion of the operator/manager's CRT screen.

ARGUMENTS:

None

EXAMPLES:

ERASE

ER

EXECUTE Command

SYNTAX:

EXECUTE command_file [arguments]

DESCRIPTION:

The EXECUTE command is used to initiate the execution of a command file. The command keyword, EXECUTE, is optional and the command file may be invoked by its name alone. See Command Files for more information on command file execution.

ARGUMENTS:

command_file - name of the command file (an extension of '.CMD' is assumed).

arguments - optional arguments to be substituted for dummy arguments in the command file. See Dummy Arguments for more information on passing arguments to command files.

EXAMPLES:

EXECUTE DMA **! Execute a command file called DMA.CMD**

DMA 145/ **! Execute command file DMA.CMD with argument**
! 145/

FORWARD Command

SYNTAX:

FORWARD

DESCRIPTION:

The FORWARD commands is used to display the next page (18 lines) of a DAPS multi-page display. The down arrow key on the function keypad provides the same capability.

ARGUMENTS:

None

EXAMPLES:

FORWARD

FO

FLUSH Command

SYNTAX:

FLUSH queue_name

DESCRIPTION:

The **FLUSH** command provides a means for the DAPS operator to flush the contents of various DAPS system queues.

ARGUMENTS:

queue_name - name of the DAPS queue to be flushed. Valid names are:

| | | |
|---------------|---|-----------------------------------|
| IME | - | Interrogate Modulator East |
| IMW | - | Interrogate Modulator West |
| TT1 | - | Test Transmitter 1 |
| TT2 | - | Test Transmitter 2 |
| BT1 | - | Block Transmitter 1 |
| BT2 | - | Block Transmitter 2 |
| DOMSAT | - | DOMSAT Interface |
| NMC | - | NMC Interface |
| LOG | - | DAPS Log |
| GMS | - | Global Message Storage |
| GMD | - | Global Message Directory |

EXAMPLES:

FLUSH IME **! Flush queue for interrogate modulator east**

FL NMC **! Flush NMC queue**

FLUSH NMC Command

SYNTAX:

FLUSH NMC [time]

DESCRIPTION:

This option of the FLUSH command provides a means for the DAPS operator to flush the contents of the NMC (NWSTG) message queue. An optional time argument provides for a limited flushing of the queue.

ARGUMENTS:

NMC - keyword indicating the NMC (NWSTG) message queue.

time - optional argument indicating a time limit for flushing.

All messages received after the time entered will be transmitted to the NMC; all messages received before the time entered are flushed from the queue.

EXAMPLES:

FLUSH NMC **! Flush all entries from NMC queue**

**FL NMC 12:30 ! Flush all entries before 12:30:00 of current
! day**

GO Command

SYNTAX:

GO

DESCRIPTION:

The GO command may be used to reactivate a command file that has been put in a wait state as the result of a command error or the execution of an unconditional WAIT command. See Command Files for more information on command file execution.

ARGUMENTS:

none

EXAMPLES:

GO ! Reactivate a command file

G

HELP Command

SYNTAX:

HELP [command] [argument]

DESCRIPTION:

The **HELP** command provides full screen displays on specific or all DAPS commands.

ARGUMENTS:

command - optional argument specifying a particular command to receive help for. Defaults to general help for all commands.

argument - optional command argument for more complicated commands (ex. **DISPLAY MESSAGE_FILE**).

EXAMPLES:

HELP ! Generates a full screen display with help
! on all DAPS commands

H DISPLAY MESSAGE_FILE

! Generates a full screen display with specific
! help on using the **DISPLAY MESSAGE_FILE**
! command

INTERROGATE Command

SYNTAX:

INTERROGATE platform_id [retry]

DESCRIPTION:

This command provides the means to request an interrogation of a DCP with interrogate capabilities.

ARGUMENTS:

platform_id - specifies the address of the DCP to be interrogated.

retry - optional retry count if DCP does not reply.

EXAMPLES:

INTERROGATE ABCD0123 **! Request an interrogation of**
 ! platform ABCD0123

I ABCD4321 2 **! Request an interrogation of**
 ! platform ABCD4321. Retry 2 times
 ! if platform does not reply

KILL Command

SYNTAX:

KILL

DESCRIPTION:

The **KILL** command may be used to terminate execution of a command file that has been put into a wait state as a result of a command error or the execution of an unconditional **WAIT** command. See **Command Files** for more information on command file execution.

ARGUMENTS:

None

EXAMPLES:

KILL ! Kill the currently executing command file

K

PRINT Command

SYNTAX:

PRINT display_name arguments

DESCRIPTION:

The PRINT command may be used to print any display that may be invoked by the DISPLAY command. For more information, see DISPLAY command description.

ARGUMENTS:

display_name - see DISPLAY command description.

arguments - see DISPLAY command description.

EXAMPLES:

PRINT PDT A1B2C3D4 !Print platform description for DCP ! A1B2C3D4

PR SYSTEM_SUMMARY ! Print SYSTEM_SUMMARY display

RETRANSMIT Command

SYNTAX:

```
RETRANSMIT ALL [since] [until]
PLATFORM_ID platform_id [since] [until]
CHANNEL_ID channel_id [since] [until]
LIST_ID user_id list_id [since] [until]
LIST_CHANNEL user_id list_id channel_id [since] [until]
```

DESCRIPTION:

The RETRANSMIT command provides a means queue retransmission of messages over DOMSAT. Various selection arguments are provided.

The ALL option requests retransmission of all messages received.

The PLATFORM_ID option requests retransmission of all messages received from a specific DCP.

The CHANNEL_ID option requests retransmission of messages received on a particular channel.

The LIST_ID option selects all messages received from platforms that are included on a user's network list.

The LIST_CHANNEL option selects all messages received from DCPs that are included in the specified user network list and have been received on the specified channel.

Additional optional selection criteria in the form of time range selection may be applied to the options listed above.

ARGUMENTS:

| | |
|--------------|---|
| ALL | - keyword indicating message selection is for all messages received. |
| PLATFORM_ID | - keyword indicating that message selection is to be for the specified platform. |
| CHANNEL_ID | - keyword indicating that message selection is for the specified channel. |
| LIST_ID | - keyword indicating that message selection is to be by platforms contained in the specified user network list. |
| LIST_CHANNEL | - keyword indicating that message selection is to be by platforms contained in the specified user's network list but restricted to the specified channel. |
| platform_id | - specifies a particular DCP. |
| user_id | - 6 character user identifier (ex. NWSHUR). |
| list_id | - specifies a specific network list (1 - 5). |
| channel_id | - specifies a particular channel and GOES spacecraft assignment (ex. 21E or 84W). |
| since | - optional time argument specifying the start time of a time range in which to search for messages. Defaults to time of earliest message received. See Date/Time Arguments. |

until - optional time argument specifying the end time of a time range in which to search for messages. Defaults to time of most recent message received. See Date/Time Arguments.

EXAMPLES:

RETRANSMIT ALL 10 11:15

! Retransmit all messages received between 10:00:00
! and 11:15:00 of the current day

RETRANSMIT PLATFORM_ID ABCD0123

! Retransmit all messages received from DCP ABCD0123

RE LIST_ID USRA01 1 260/

! Retransmit all messages received from platforms
! included on network list 1 of user USRA01 that
! have been received after 00:00:00 of day 260

RE LIST_CHANNEL USRA01 3 21E

! Retransmit all messages that have been received
! from platforms included on network list 3 of user
! USRA01 and have been received on channel 21E

RE LIST_CHANNEL USRA01 2 21E 08:00 08:10

! Retransmit all messages that are included on
! network list 2 of user USRA01 and were received on
! channel 21E between 08:00:00 and 08:10:00 of the
! current day

SEND BULLETIN Command

SYNTAX:

SEND BULLETIN platform_id text

DESCRIPTION:

The **SEND BULLETIN** command is used to send bulletins to all users or users receiving data from a specific DCP.

ARGUMENTS:

BULLETIN - keyword indicating a bulletin is to be sent.

ALL - keyword indicating the bulletin should be sent to all users.

platform_id - specifies a unique platform address.

text - Text of the bulletin. Remember to enclose this field in quotes.

EXAMPLES:

SEND BULLETIN ALL "SYSTEM SWITCH OVER AT 3:30"

SE BULLETIN A1B2C3D4 "TIME DRIFT INCREASING, MAY LOSE MESSAGES"

SEND MAIL Command

SYNTAX:

SEND MAIL user_id [file_name]

DESCRIPTION:

The **SEND MAIL** command provides a means for the operator/manager to communicate with users or each other via electronic mail.

A piece of mail is limited to 100 lines of text.

ARGUMENTS:

MAIL - keyword indicating mail is to be sent.

user_id - 6 character user identifier (may also be OPR or MGR).

file_name - optional argument specifying the name of a previously created text file which will be used as the contents of the piece of mail. If this argument is not supplied, text for the contents of the piece of mail will be obtained directly from the keyboard. The operator/manager will be prompted for each line of mail. A '>' entered as the first character of the line terminates input.

EXAMPLES:

SEND MAIL USRA01

NUMBER OF REQUESTS RESET TO 0. TRY DOWNLOAD AGAIN.

>

SE MAIL MGR AGENDA.TXT

! Send mail to manager using the contents of AGENDA.TXT

SNAP Command

SYNTAX:

SNAP

DESCRIPTION:

The SNAP command may be used to print the current contents of the DAPS CRT screen. The snap is sent to the printer specified in the system parameter, CO_PRINTER, assigned to the CRT number.

ARGUMENTS:

None

EXAMPLES:

SNAP ! Print the current screen

SN

SUBMIT Command

SYNTAX:

SUBMIT file_name

DESCRIPTION:

The SUBMIT command is used to submit commands for batch execution. Commands are limited to a subset of operator/manager commands used for DAPS DBMS management. The batch capability is helpful when making modifications to a large number of DBMS entries. The batch commands available are:

**ADD CHANNEL
ADD NETWORK_LIST
ADD PLATFORM
ADD USER
UPDATE CHANNEL
UPDATE PLATFORM
UPDATE USER
DELETE CHANNEL
DELETE NETWORK_LIST
DELETE PLATFORM
DELETE USER
BYE**

The status of execution of each command in the batch file is recorded in the user's mail for review. Commands with errors are terminated with an error message and command processing continues with the next command in the batch file.

ARGUMENTS:

file_name - name of command file containing DAPS commands. The '.CMD' is assumed.

EXAMPLES:

SUBMIT PDT_COLBIA

SWITCH Command

SYNTAX:

SWITCH Y
N

DESCRIPTION:

The switch command is used to manually switch the primary DAPS system with backup DAPS system.

ARGUMENTS:

Y or N - answer to prompt confirming manual switchover.

EXAMPLES:

SWITCH ! Request system switchover.

SW Y

TEST Command

SYNTAX:

TEST CHANNEL channel_id tt_id [text] [preamble]

NMC count
DOMSAT count

DESCRIPTION:

The TEST command provides a means to test DAPS interfaces. There are options to test channels, the NMC interface and the DOMSAT interface.

ARGUMENTS:

CHANNEL - keyword indicating a channel is to be tested.

channel_id - channel number and GOES spacecraft of channel to tested (ex. 123E).

tt_id - number of the test transmitter to be used (1 or 2).

text - optional text string to be used as a test message. This option is only available on the new test transmitter. Defaults to message stored in the system parameter, TT_AUTO_TEXT for the specified test transmitter.

preamble -optional preamble to use (L or S). Defaults to value in the system parameter, TT_AUTO_PREAMBLE, assigned to the test transmitter specified.

NMC - keyword indicating NMC interface test.

DOMSAT - keyword indicating DOMSAT interface test.

count - number of test messages to be sent (1 - 1000).

EXAMPLES:

| | |
|---------------------------|--|
| TEST 62W 1 | ! Test channel 62W using test transmitter 1 |
| TE 71E 2 "TEST MESSAGE" S | ! Test channel 71E |
| TEST NMC 20 | ! Test NMC interface by sending 20 test messages |
| TEST DOMSAT 5 | ! Test DOMSAT interface with 5 messages |

UPDATE Command

SYNTAX:

```
UPDATE      table_name parameter=value  END
            system_parameter value
```

DESCRIPTION:

The UPDATE command is used to update an entry in a DAPS DBMS table or a system parameter.

ARGUMENTS:

table_name - keyword indicating the DAPS DBMS table to be updated. Valid table names are:

| | |
|-----------------|-----------------------------|
| CHANNEL | - Channel Description Table |
| DEMOD_DRAWER | - Demodulator Drawer Table |
| DEMOD_SLOT | - Demodulator Slot Table |
| HARDWARE_STATUS | - System Hardware Status |
| PLATFORM | - Platform Description |
| USER | - User Description Table |

parameter=value - a pair of arguments composed a parameter keyword and the value to be assigned to that parameter. For more information on updating individual tables, see following sections.

END - keyword indicating the end of the table update.

system_parameter - name of a system parameter.

value - value to be assigned to the system parameter.

EXAMPLES:

```
UP CO_AUDIO_ALARM (2) = 5      ! Set audio alarm rate for CRT 2 to 5 seconds.
```

UPDATE CHANNEL Command

SYNTAX:

UPDATE CHANNEL channel_id parameter=value.. END

DESCRIPTION:

The UPDATE CHANNEL command is used to modify an existing channel description in the Channel Description Table (CDT). The current CDT entry for the channel may be viewed by using the DISPLAY CHANNEL_PARMS command.

ARGUMENTS:

CHANNEL - (short form: CDT) keyword indicating a modification to the Channel Description Table.

channel_id - channel number and GOES spacecraft assignment (example: 123E)

parameter=value -pairs of parameter keywords and the values to be assigned to the parameters. See Appendix C for a description of Channel Description Table parameters.

END - keyword indicating end of the command.

EXAMPLES:

| | |
|------------------|---------------------------------------|
| UPD CHANNEL 151E | & Update channel description for 151E |
| AUTO_TEST = Y | & Auto-testing enabled |
| AUTO_TTID = 1 | & Test transmitter 1 |
| MAX_TESTS = 2 | & Maximum test retries = 2 |
| END | |

UPDATE DEMOD_DRAWER Command

SYNTAX:

UPDATE DEMOD_DRAWER drawer parameter=value.. END

DESCRIPTION:

The UPDATE DEMOD_DRAWER command provides a means to change parameters affecting the operation of demodulator drawers. The current demodulator drawer settings may be viewed by using the DISPLAY DEMOD_DRAWER command.

ARGUMENTS:

| | |
|-----------------|---|
| DEMOD_DRAWER | - keyword indicating a modification to demodulator drawer parameter settings. |
| drawer | - demodulator drawer number (1 - 47). |
| parameter=value | - pairs of parameter keywords and the values to be assigned to the parameters. Valid parameter keywords and values are: |
| ENABLED | - (Y/N) indicates drawer enabled |
| SCID | - (E/W) GOES satellite assigned |
| DATA_RATE | - (100/300/1200) demod baud |
| MAX_SLOTS | - (1 - 10) maximum slots |
| ERR_MASK | - (Y/N) error masking enabled |
| END | - keyword indicating end of the command. |

EXAMPLES:

```
UPDATE DEMOD_DRAWER 3    & Update demodulator drawer 3
ERR_MASK = Y              & Enable error masking
END
```

UPDATE DEMOD_SLOT Command

SYNTAX:

UPDATE DEMOD_SLOT drawer slot parameter=value.. END

DESCRIPTION:

The **UPDATE DEMOD_SLOT** command provides a means to change parameters affecting the operation of specific demodulator slots within a demodulator drawer. The current demodulator slot settings may be viewed by using the **DISPLAY DEMOD_SLOT** command.

ARGUMENTS:

- keyword indicating a modification to a demodulator slot's parameter settings.

drawer - demodulator drawer number (1 - 47).

slot - demodulator slot number (1 - 10).

parameter=value - pairs of parameter keywords and the values to be assigned to the parameters. Valid parameter keywords and values are:

ENABLED - (Y/N/T) indicates slot enabled

CHANNEL - (1 - 266) channel assigned

END - keyword indicating end of the command.

EXAMPLES:

```
UPDATE DEMOD_SLOT 3 1    & Update demodulator drawer 3, slot 1
ENABLED = T              & Enable slot in test mode
END
```

UPDATE HARDWARE STATUS Command

SYNTAX:

UP HARDWARE_STATUS component_id component_no parameter=value.. END

DESCRIPTION:

The UPDATE HARDWARE_STATUS command is used to modify an existing entry in the System Hardware Status Table. The current SHS entry may be viewed by using the DISPLAY HARDWARE_STATUS command.

ARGUMENTS:

HARDWARE_STATUS - (short form: SHS) keyword indicating a modification to the System Hardware Status Table.

component_id - unique 2 character hardware component identifier. See System Hardware Status Table description in Appendix C

component_no - component number. See System Hardware Status Table description in Appendix C

parameter=value - pairs of parameter keywords and values to be assigned to the parameters. See System Hardware Status Table in Appendix C

END - keyword indicating end of the command.

EXAMPLES:

**UPD HARDWARE_STATUS PN 3 & Update description for printer
COMPONENT_STAT = S & Spare
END**

UPDATE PLATFORM Command

SYNTAX:

UPDATE PLATFORM platform_id parameter=value.. END

DESCRIPTION:

The UPDATE PLATFORM command is used to modify an existing platform description entry in the Platform Description Table (PDT). The current PDT entry for the platform may be viewed by using the DISPLAY PLATFORM_PARMS command.

ARGUMENTS:

| | |
|-----------------|---|
| PLATFORM | - (short form: PDT) keyword indicating a modification to the Platform Description Table. |
| platform_id | - unique DCP address. |
| parameter=value | - pairs of parameter keywords and the values to be assigned to the parameters. See Appendix C for a description of Platform Description Table parameters. |
| END | - keyword indicating end of the command. |

EXAMPLES:

| | |
|-----------------------|---------------------------------------|
| UPD PLATFORM 324AC28A | & Update PDT description for 324ACA8A |
| NMC_FLAG = N | & Not to NMC |
| END | |

UPDATE USER Command

SYNTAX:

UPDATE USER user_id parameter=value.. END

DESCRIPTION:

The UPDATE USER command is used to modify an existing user description in the User Description Table (UDT). The current contents of the UDT entry may be viewed by using the DISPLAY USER_PARMS command.

ARGUMENTS:

| | |
|------------------------|---|
| USER | - (short form: UDT) keyword indicating a modification to the User Description Table. |
| user_id | - six (6) character user identifier |
| parameter=value | - pairs of parameter keywords and the values to be assigned to the parameters. See Appendix C for a description of User Description Table parameters. |
| END | - keyword indicating end of the command. |

EXAMPLES:

| | |
|-------------------------|--|
| UPD USER USRA12 | & Update description for user, USRA12 |
| PRIME_MEDIUM = D | & Change to dissemination via DOMSAT |
| END | |

WAIT Command

SYNTAX:

WAIT [seconds]

DESCRIPTION:

The WAIT command may be used to place timed or unconditional pauses in a command file. A timed wait causes execution to suspend for the specified number of seconds. An unconditional wait places command file execution into a suspended state. In this state, commands may be entered manually. Command file execution may be reinitiated by entering the GO command or terminated by entering the KILL command.

ARGUMENTS:

seconds - optional argument specifying the number of seconds to pause before continuing execution (1 - 60). Defaults to unconditional wait.

EXAMPLES:

WAIT 5 ! Wait 5 seconds before continuing execution

W ! Wait until 'GO' or 'KILL' is entered

APPENDIX C

DAPS DBMS TABLES MODIFIABLE THROUGH OPERATOR/MANAGER ONLINE INTERFACE

Channel Description Table (CDT) Parameters

| PARAMETER | DESCRIPTION | ACCESS |
|-------------|---|---------|
| CHAN_TYPE | *Channel type: S: Self-timed, R: Random I: Interrogate, D: Dual | OPR/MGR |
| DATA_RATE | *Data rate in bps (100/300/1200) | OPR/MGR |
| AUTO_TEST | *Auto test transmission option for this channel (Y/N) | OPR/MGR |
| AUTO_TTID | Test transmitter ID to be used for auto-tests (1/2) | OPR/MGR |
| MAX_TESTS | Maximum number of test retries | OPR/MGR |
| ERR_FREQ | *Consecutive number of failures before reporting error | OPR/MGR |
| CAL_OPTION | *Calibration option for channel signal strength: A: auto calibration to be used M: Manually entered calibration value to be used D: Calibration disabled | OPR/MGR |
| MANUAL_BIAS | Manually entered calibration value for signal strength | OPR/MGR |
| BLK_ID | TT# for blocking use | OPR/MGR |
| BLK_ENABLED | *Blocking enabled on this channel (Y/N) | OPR/MGR |
| FIRST_BLK | Time of first blocking (HHMMSS) | OPR/MGR |
| BLK_WINDOW | Duration of block (HHMMSS) | OPR/MGR |
| BLK_PERIOD | Time period between blocks (HHMMSS) | OPR/MGR |

Notes:

- (1) Selection is by channel number and GOES spacecraft assignment (ex. 52W)
- (2) Access to parameters:

| | |
|---------|---|
| OPR/MGR | - parameter may be updated by Operator or Manager |
| MGR | - parameter may be updated by Manager only |
| OPR | - parameter may be updated by Operator only |
- (3) '*' - indicates parameter is required by DBMS definition.

Platform Description Table (PDT) Parameters

| PARAMETER | DESCRIPTION | ACCESS |
|----------------|--|---------|
| OWNER_ID | *Owner user ID (must be in UDT) | MGR |
| PRIME_TYPE | *Primary type: S: Self-timed, I: Interrogate, R: Random, D: Dual | MGR |
| PRIME_CHAN | * Primary channel: 1 - 266 (must be in CDT) | MGR/OPR |
| PRIME_SCID | * Primary GOES spacecraft assigned : E: East, W: West | MGR/OPR |
| SECND_ADDR | Secondary address | MGR |
| SECND_TYPE | Secondary type: R: Random, I: Interrogate, or Null (" ") Note: valid PRIME/SECND types are S/I, S/R | MGR |
| SECND_CHAN | Secondary channel: 0 - 266 (must be in CDT if >0) | MGR |
| SECND_SCID | Secondary GOES spacecraft assigned : E: East, W: West, or Null (" ") | MGR |
| TRIGGER_MODE | Trigger mode: S: Special, T: test, or Null (" ") Note: if not Null then: (a) PRIME_TYPE must be R (b) SECND_ADDR (trigger id) required FIRST_XMT Time of first transmission for S/D type platforms; Time of first interrogation for I type platforms in HMMSS format | MGR |
| XMT_PERIOD | Time period between transmissions (S/D) Time period between interrogations (I) in HHMMSS format | MGR/OPR |
| XMT_WINDOW | Maximum transmission window size in MMSS (S/D) | MGR |
| XMT_RATE | *Data transmission rate in bps (100/300/1200) | MGR |
| MAX_RETRIES | Maximum number of interrogation retries (I) | MGR |
| DATA_FORMAT | *DCPRS data format: A: ASCII, B: Binary | OA/MGR |
| PRIME_PREAMBLE | DCPRS preamble type: L: Long, S: Short | OA/MGR |
| SECND_PREAMBLE | DCPRS preamble type: L: Long, S: Short | OA/MGR |
| LOC_CODE | 3 Character location code | OA/MGR |
| LOC_REGION | Location category: A: United States, B: Canada, C: South America, O: Other | OA/MGR |
| LOC_NAME | Location name (31 characters) | OA/MGR |
| LATITUDE | Latitude in DDMMSS | OA/MGR |
| LONGITUDE | Longitude in DDMMSS | OA/MGR |
| MIN_ELEVATION | Minimum elevation angle of platform (in DD) | OA/MGR |
| CATEGORY | Platform category: A: Aircraft, S: Ship F: Fixed-buoy, D: Drifting-buoy, B: Balloon, L: Land-based O: Other | OA/MGR |
| SHEF_CODE1 | Shef code (2 characters) | OA/MGR |
| SHEF_CODE2 | Shef code | OA/MGR |
| SHEF_CODE3 | Shef code | OA/MGR |
| SHEF_CODE4 | Shef code | OA/MGR |
| SHEF_CODE5 | Shef code | OA/MGR |
| SHEF_CODE6 | Shef code | OA/MGR |
| SHEF_CODE7 | Shef code | OA/MGR |
| SHEF_CODE8 | Shef code | OA/MGR |
| SHEF_CODE9 | Shef code | OA/MGR |
| SHEF_CODE10 | Shef code | OA/MGR |
| SHEF_CODE11 | Shef code | OA/MGR |
| SHEF_CODE12 | Shef code | OA/MGR |
| SHEF_CODE13 | Shef code | OA/MGR |
| SHEF_CODE14 | Shef code | OA/MGR |
| SHEF_CODE15 | Shef code | OA/MGR |

Platform Description Table (PDT) Parameters (CONT.)

| PARAMETER | DESCRIPTION | ACCESS |
|----------------|--|--------|
| MANUFACTR_ID | DCPRS manufacturer name (14 characters; must be in RDT) | OA/MGR |
| MODEL_NO | DCPRS model number (16 characters; must be in RDT) | OA/MGR |
| SEASON_ID | Seasonal indicator | OA/MGR |
| NMC_FLAG | *NMC dissemination flag (Y/N) | MGR |
| NMC_DESCRIPTOR | NMC data descriptor (6 characters) Note: must be supplied if NMC_FLAG = 'Y' | MGR |
| ASSIGN_DATE | *Date address assigned to user (YYYYMMDD) | MGR |
| DATE_DEPLOY | Date deployed (YYYYMMDD) | OA/MGR |
| DATE_REDEPLOY | Date redeployed (YYYYMMDD) | OA/MGR |
| PMAINT_NAME | Maintenance official name (24 characters) | OA/MGR |
| PMAINT_PHONE | Maintenance official phone (20 characters) | OA/MGR |
| PMAINT_FTS | Maintenance official FTS phone (7 characters) | OA/MGR |
| PMAINT_FAX | Maintenance official FAX phone (20 characters) | OA/MGR |
| PMAINT_TELEX | Maintenance official telex (20 characters) | OA/MGR |
| ERR_FREQ | Consecutive number of failures before reporting error | OPR |

Notes:

- (1) Selection is by DCP address.
- (2) Access to parameters:
 - MGR - parameter may be updated by Manager only
 - OA - parameter may be updated by Owner Agency only
 - OPR - parameter may be updated by Operator only
 - OA/MGR - update by Owner Agency or Manager
- (3) '*' - indicates parameter is required by DBMS definition.
- (4) In order to make a PDT entry (except for 'D' type platforms) complete, the following parameters must be set:

MANUFACTR_ID
 MODEL_NO
 PRIME_PREAMBLE
 SECND_PREAMBLE if SECND_TYPE not " "
 CATEGORY
 LOC_CODE
 LOC_REGION
 SHEF_CODE1
 SEASON_ID
 PMAINT_NAME
 LATITUDE and LONGITUDE if CATEGORY = F
 DATE_DEPLOY

and at least one of the following:

PMAINT_PHONE
 PMAINT_FTS
 PMAINT_FAX
 PMAINT_TELEX

System_Hardware_Status (SHS) Parameters

| PARAMETER | DESCRIPTION | ACCESS |
|----------------|--|--------|
| COMPONENT_TYPE | *Component Type: I: Internal E: External | OPR |
| COMPONENT_STAT | *Component Status: A: Active S: Spare R: Repair | OPR |
| COMPONENT_LOC | *Component Location: EM: Equip. Manufacturer WL: Wallops Logistics WR: Wallops Repair WD: Wallops DCS DS: DAPS | OPR |
| MANUFACTURER | *Manufacturer (12 characters) | OPR |
| MODEL_NO | *Equipment Model number (18 characters) | OPR |
| SERIAL_NO | *Serial number (24 characters) | OPR |
| STATUS_DATE | Date of last status change (YYYYDDD) | OPR |
| STATUS_TIME | Time of last status change (HHMMSS) | OPR |
| FIRST_DATE | *Date first in service (YYYYDDD) | OPR |
| DOWN_COUNT | Total number of failures | OPR |
| OPERATOR_ID | *Initials last update operator | OPR |

Notes:

- (1) Selection is by component identifier and component number. Current component identifiers are: FS: Fall back switch DK: disk IC: ISI card
SI: Synchronous I/F AI: Asynchronous I/F
CN: Controller ME: Memory
TM: Terminal PN: Printer
DT Telecom DEMOD DA: ADDs DEMOD
D1: 1200 DEMOD DS: 300 S DEMOD
DR: 300 R DEMOD IM: Interrgate Modulator
TO: Old Test XMTR TN: New Test XMTR
PX: Pilot XMTR DT: DROT QM: DQM
MA: Asynch Modem MN: NMC Modem
MW: WWB Modem DC: DEMOD Chassis
- (2) Access to parameters:
OPR - parameter may be updated by Operator only.
- (3) *- indicates parameter is required by DBMS definition.

User Description Table (UDT) Parameters

| PARAMETER | DESCRIPTION | ACCESS |
|----------------|---|--------|
| USER_TYPE | *Government/nongovt ID (Type of user): F: Fed.Government, S: State, D: Domestic, C: Canada, O: Other | MGR |
| USER_NAME | *User organization name (24 characters) | MGR |
| PARENT_NAME | Parent organization name (24 characters) | MGR |
| MAJOR_NAME | Major organization name (24 characters) | MGR |
| MOA_ID | *Name of organization for MOA (must be in DBMS) | MGR |
| OPR_NAME_LAST | *Operating official's last name (20 characters) | OA/MGR |
| OPR_NAME_FIRST | *Operating official's first name (21 characters) | OA/MGR |
| OPR_ADDR_LINE1 | Operating official's address, first line (Box #, Building, Suite, etc.) (35 characters) | OA/MGR |
| OPR_ADDR_LINE2 | Operating official's address, second line (Street, Avenue, etc.) (35 characters) | OA/MGR |
| OPR_CITY | Operating official's city (25 characters) | OA/MGR |
| OPR_STATE_PROV | Operating official's state or province (30 characters) (also used for country if USER_TYPE = O) | OA/MGR |
| OPR_ZIP_CODE | Operating official's zip code (11 characters) | OA/MGR |
| OPR_PHONE | #Operating official's phone (20 characters) | OA/MGR |
| OPR_FTS | #Operating official's FTS phone (7 characters) | OA/MGR |
| OPR_TELEX | #Operating official's telex (20 characters) | OA/MGR |
| OPR_FAX | #Operating official's FAX phone (20 characters) | OA/MGR |
| PRIME_MEDIUM | *Primary medium: D: DOMSAT, T: Telephone, N: NMC, G: Direct Readout GS | MGR |
| REQUEST_NUM | Number of dissemination requests for request date | OPR |

Notes:

- (1) Selection is by user id.
- (2) Access to parameters:
 - MGR - parameter may be updated by Manager only
 - OA - parameter may be updated by Owner Agency only
 - OPR - parameter may be updated by Operator only
 - OA/MGR - update by Owner Agency or Manager
 - MGR/OPR - update by Manager or Operator
- (3) '*' - indicates parameter is required by DBMS definition.
 '#' - indicates at least one is required by DBMS definition.

APPENDIX D

DAPS DG/SQL DBMS TABLES

INTRODUCTION TO APPENDIX D

This appendix contains the major reference material for the DAPS Data General/Sequential Query Language (DG/SQL) Data Base Management System (DBMS). These DBMS tables have been included as an aid to writing queries through the DG PRESENT utility. Modification to these tables should only be performed through an established method such as the Online Command Interface or PRESENT macros which have been provided.

Note: Tables are in alphabetical order.

Channel_Description_Table (CDT in DBMS)

199 Channels (E or W Satellite) x 60 Bytes : 11.9 KB
 33 Channels on both Satellites x 60 Bytes : 4.0 KB
 Total : 15.9 KB

(18 columns)

| ELEMENT NAME | DESCRIPTION | SIZE |
|------------------------------------|--|------|
| CHANNEL | * Channel ID | 2 |
| SATID | * Goes spacecraft assigned (E/W) | 1 |
| CHAN_TYPE | * Channel type: S: Self-timed, R: Random I: Interrogate, D: Dual | 1 |
| DATA_RATE | * Data rate in bps (100/300/1200) | 2 |
| AUTO_TEST | * Auto test transmission option for this channel (Y/N) | 1 |
| AUTO_TTID | Test transmitter ID to be used for auto-tests (1/2) | 1 |
| MAX_TESTS | Maximum number of test retries | 2 |
| ERR_FREQ | * Consecutive number of failures before reporting error | 2 |
| CAL_OPTION | * Calibration option for channel signal strength: A: auto calibration to be used M: Manually entered calibration value to be used D: Calibration disabled | 1 |
| MANUAL_BIAS | Manually entered calibration value for signal strength | 2 |
| BLK_ID | TT# for blocking use | 1 |
| BLK_ENABLED | Blocking enabled on this channel (Y/N) | 1 |
| FIRST_BLK | Time of first blocking (HHMMSS) | 4 |
| BLK_WINDOW | Duration of block (HHMMSS) | 4 |
| BLK_PERIOD | Time period between blocks (HHMMSS) | 4 |
| UPDATE_DATE | Date of last update (YYYYDDD) | 4 |
| UPDATE_ID | Userid of last update person | 6 |
| Reserve space, 20 bytes,14 columns | | 20 |

Notes:

- (1) The CHANNEL and SATID combination is the the key for this table.
- (2) "*" means field required by DBMS definition.
- (3) Modifications to this table should be performed through the UPDATE CDT command of the Online Command Interface.

Channel_Statistics_Table (CST in DBMS)

199 Channels (E or W Satellite) x 69 Bytes : 164.8 KB
 33 Channels on both Satellites x 69 Bytes : 54.6 KB
 Total : 219.4 KB

(18 columns)

| ELEMENT NAME | DESCRIPTION | SIZE IN BYTES |
|---------------|--|---------------|
| CHANNEL | Channel number | 2 |
| SATID | Satellite ID (E- East, W- West) | 1 |
| CST_MONTH | Month designation, 1-12 | 2 |
| MSG_BYTES | Total length of data in bytes | 4 |
| MSG_TIME | Total length of data in seconds | 4 |
| EXPCTD_MSGS | Number of expected messages | 4 |
| GOOD_MSGS | Number of good messages received | 4 |
| PARITY_ERRS | Number of messages with parity errors | 2 |
| INVALID_ADDR | Number of messages with invalid address errors | 2 |
| MISSING_MSGS | Number of missing messages | 2 |
| TEST_COUNT | Number of test messages scheduled on this channel | 2 |
| TEST_PARERR | Number of test messages received with parity err's | 2 |
| TEST_MISSES | Number of test messages not received (missing) | 2 |
| TEST_ADDRERR | Number of test messages with address error | 2 |
| TEST_BADQM | Number of test messages with bad quality measure. | 2 |
| ASSIGNED_DCPS | The number of DCP's assigned to channel | 4 |
| ACTIVE_DCPS | The number of DCP's active on channel | 4 |
| UPDATE_DATE | Date of last update (YYYYDDD) | 4 |
| | Reserve space, 20 bytes,15 columns | 20 |

Notes:

- (1) The CHANNEL, SATID, and CST_MONTH combination is the unique key for this table.
- (2) The channel statistics are maintained for: The current month to date
The previous full 11 months
- (3) Note that the statistics are based on 86,400 seconds per day, thus statistics are computed as a weighted average when entered.
- (4) Row entered by FORTRAN update utility - no null fields.

Dialin_Statistics_Table (LST in DBMS)

10 lines x 12 months x 28 bytes : 3360 bytes (5 columns)

| ELEMENT NAME | DESCRIPTION | SIZE IN BYTES |
|---|--|---------------|
| LINE_ID | Line ID (1-10) | 2 |
| LST_MONTH | Month designation, 1-12 | 2 |
| NUM_MSGS | Number of messages disseminated | 4 |
| NUM_SECS | Number of seconds used on this line | 4 |
| UPDATE_DATE | Date of last update (YYYYDDD) | 4 |
| Reserve space, 12 bytes,12 columns | | 12 |

Notes:

- (1) **The LINE_ID and LST_MONTH is the unique key for this table.**
- (2) **The line statistics are maintained for: Current month to date
The previous full 11 months**
- (3) **Row entered by FORTAN update utility - no null fields.**

DOMSAT_Statistics_Table (DST in DBMS)

12 months x 34 Bytes: 408 bytes (6 columns)

| ELEMENT NAME | DESCRIPTION | SIZE IN BYTES |
|---------------|---|---------------|
| DST_MONTH | Month designation, 1-12 | 2 |
| NUM_MSGS | Total number of messages disseminated | 4 |
| BL_XMITS | Number of messages transmitted due to backlog | 4 |
| QM_REXMITS | Number of messages retransmitted due to QM requests | 4 |
| USER_REQUESTS | Number of user retransmit requests | 4 |
| UPDATE_DATE | Date of last update (YYYYDDD) | 4 |
| | Reserve space, 12 bytes,12 columns | 12 |

Notes:

- (1) The DST_MONTH is the the key for this table.
- (2) The domsat statistics are maintained for:
Current month to date
The previous full 11 months
- (3) Row entered by FORTRAN update utility - no null fields.

Mail Storage Table (MST in DBMS)

8022 Bytes x 750 entries = 6 MBytes

| ELEMENT NAME | DESCRIPTION | SIZE IN BYTES |
|-------------------|---|---------------|
| DESTIN_ID | User ID of destination for mail | 6 |
| SOURCE_ID | User ID of source of mail | 6 |
| ENTRY_DATE | Date of mail entry to DAPS (YYYYDDD) | 4 |
| ENTRY_TIME | Time of mail entry to DAPS (HHMMSS) | 4 |
| MSG_TEXT | Text of mail message | 8002 |

NOTES:

(1) The key is DESTIN_ID, ENTRY_DATE, AND ENTRY_TIME.

Memorandum_of_Agreement_Table (MOA in DBMS)

5000 Users x 243 Bytes: 1,215 KB

| ELEMENT NAME | DESCRIPTION | SIZE IN BYTES |
|---------------|---|---------------|
| MOA_ID | Name of organization | 24 |
| MOA_TYPE | Type of MOA D: Domestic, I: International, M: Manufacturer, O: Operating agreement | 1 |
| MOA_COMPLETE | MOA complete flag (Y/N) | 1 |
| MOA_REQUEST | Date initial request for MOA received (YYYYMMDD) | 4 |
| FORM_SENT | Date MOA application sent to requestor (YYYYMMDD) | 4 |
| FORM_RECEIVED | Date MOA appl. returned from requestor (YYYYMMDD) | 4 |
| ORG_NAME | Name of organization's approving official | 24 |
| ORG_DATE | Date of signature of RG_NAME official(YYYYMMDD) | 4 |
| NESDIS_NAME | Name of NESDIS approving official | 24 |
| MOA_APPROVE | Date original MOA approved (YYYYMMDD) | 4 |
| MOA_RENEW | Date last MOA renewal (YYYYMMDD) | 4 |
| MOA_EXPIRE | Date MOA expires (YYYYMMDD) | 4 |
| MOA_CANCEL | Date MOA cancelled (YYYYMMDD) | 4 |
| USE_TEXT | Descriptive comment on DCS use | 80 |
| UPDATE_DATE | Date of last update (YYYYMMDD) | 4 |
| UPDATE_INI | Initials of last update person | 3 |
| | Reserve space, 50 bytes,16 columns | 50 |

Notes:

- (1) The key is MOA_ID.
- (2) When any new record is added to the UDT, the system will ensure that a corresponding record in the MOA_Table exists for the MOA_ID specified in the UDT.
- (3) Entry to MOA done through PRESENT - only required fields by system are MOA_ID, MOA_TYPE, and MOA_COMPLETE. Only the manager can add/delete/update.

NMC_Statistics_Table (NST in DBMS)

12 months x 22 bytes: 264 bytes (2 columns)

| ELEMENT NAME | DESCRIPTION | SIZE IN BYTES |
|--------------------|---|---------------|
| NST_MONTH | Month designation, 1-12 | 2 |
| NUM_MSGS | Number of messages disseminated | 4 |
| UPDATE_DATE | Date of last update (YYYYDDD) | 4 |
| | Reserve space, 12 bytes,12 columns | 12 |

Notes:

- (1) **The NST_MONTH is the the key for this table.**
- (2) **The NMC statistics are maintained for: Current month to date
The previous full 11 months**
- (3) **A row is entered by a FORTAN update utility - no null fields.**

Platform_Description_Table (PDT in DBMS)

100000 Platforms x 398 bytes: 39.8 MBytes (58 columns)

| ELEMENT NAME | DESCRIPTION | SIZE IN BYTES |
|----------------|--|---------------|
| DCP_ADDR | DCP address | 8 |
| OWNER_ID | Owner user ID | 6 |
| PRIME_TYPE | Primary type: S: Self-timed, I: Interrogate, R: Random, D: Dual | 1 |
| PRIME_CHAN | Primary channel (1-266) | 2 |
| PRIME_SCID | Primary GOES spacecraft assigned : E: East, W: West B:Both | 1 |
| SECND_ADDR | Secondary address | 8 |
| SECND_TYPE | Secondary type: R: Random, I: Interrogate, or Null | 1 |
| SECND_CHAN | Secondary channel (1-266) , or Null | 2 |
| SECND_SCID | Secondary GOES spacecraft assigned : E: East, W: West B:Both | 1 |
| TRIGGER_MODE | Trigger mode: S: Special, T:test (blank if none) Note: trigger id is secondary address | 1 |
| FIRST_XMT | Time of first transmission for S/D type platforms Time of first interrogation for I type platforms in HHMMSS format | 4 |
| XMT_PERIOD | Time period between transmissions (S/D) Time period between interrogations (I) in HHMMSS format | 4 |
| XMT_WINDOW | Maximum transmission window size in MMSS (S/D) | 2 |
| XMT_RATE | Data transmission rate in bps (100/300/1200) | 2 |
| MAX_RETRIES | Maximum number of interrogation retries (I) | 2 |
| DATA_FORAT | DCPRS data format: A- ASCII, B- Binary | 1 |
| PRIME_PREAMBLE | DCPRS preamble type: L- Long, S- Short | 1 |
| SECND_PREAMBLE | DCPRS preamble type: L- Long, S- Short | 1 |
| LOC_CODE | 3 Character location code | 3 |
| LOC_REGION | Location category: A: United States, B: Canada, C: South America, O: Other | 1 |
| LOC_NAME | 31 Character location name | 31 |
| LATITUDE | Latitude in DDMSS | 4 |
| LONGITUDE | Longitude in DDMSS | 4 |
| MIN_ELEVATION | Minimum elevation angle of platform (in DD) | 2 |
| CATEGORY | Platform category: F: Fixed-buoy, D: Drifting-buoy, A: Aircraft, S: Ship B: Balloon, L: Land-based O: Other | 1 |

Platform_Description_Table (PDT in DBMS) (CONT.)

| ELEMENT NAME | DESCRIPTION | SIZE IN BYTES |
|--------------------------------------|---|---------------|
| SHEF_CODE1 | Shef code (only CODE1 required) | 2 |
| SHEF_CODE2 | Shef code | 2 |
| SHEF_CODE3 | Shef code | 2 |
| SHEF_CODE4 | Shef code | 2 |
| SHEF_CODE5 | Shef code | 2 |
| SHEF_CODE6 | Shef code | 2 |
| SHEF_CODE7 | Shef code | 2 |
| SHEF_CODE8 | Shef code | 2 |
| SHEF_CODE9 | Shef code | 2 |
| SHEF_CODE10 | Shef code | 2 |
| SHEF_CODE11 | Shef code | 2 |
| SHEF_CODE12 | Shef code | 2 |
| SHEF_CODE13 | Shef code | 2 |
| SHEF_CODE14 | Shef code | 2 |
| SHEF_CODE15 | Shef code | 2 |
| MANUFACTR_ID | DCPRS manufacturer name | 14 |
| MODEL_NO | DCPRS model number | 16 |
| SEASON_ID | Seasonal indicator | 1 |
| NMC_FLAG | NMC dissemination flag (Yes/No) | 1 |
| NMC_DESCRIPTOR | NMC data descriptor | 6 |
| ASSIGN_DATE | Date address assigned to user (YYYYMMDD) | 4 |
| DATE_DEPLOY | Date deployed (YYYYMMDD) | 4 |
| DATE_REDEPLOY | Date redeployed (YYYYMMDD) | 4 |
| PMaint_NAME | Maintenance official name | 24 |
| PMaint_PHONE | Maintenance official phone | 20 |
| PMaint_FTS | Maintenance official FTS phone | 7 |
| PMaint_FAX | Maintenance official FAX phone | 20 |
| PMaint_TELEX | Maintenance official telex | 20 |
| ERR_FREQ | Consecutive number of failures before reporting error | 2 |
| UPDATE_DATE | Date of last update (YYYYDDDD) | 4 |
| UPDATE_ID | User ID of last updating user | 6 |
| COMPLETE_FLAG | Platform description complete indicator (Y/N) | 1 |
| EDIT_NO | Edit number | 2 |
| Reserve space, 120 bytes, 37 columns | | 120 |

Notes:

- (1) The DCP_ADDR is the the key for this table.
- (2) Modifications to this table should be performed through the UPDATE PDT command of the Online Command Interface.

Platform_Statistics_Table (PST in DBMS)

100000 Platforms x 237 bytes: 23.7 MBytes
(76 columns)

| ELEMENT NAME | DESCRIPTION | SIZE IN BYTES |
|----------------------|---|---------------|
| DCP_ADDR | Platform address | 8 |
| ACTIVE_STATE | Active / deactive flag (A/D) | 1 |
| | Date (YYYYDDD) of activation: | |
| | FIRST_ACT_DATE (YYYYDDD) | 4 |
| | Date (YYYYDDD) and time (HHMMSS) of last message | |
| LAST_ACT_DATE | (YYYYDDD) | 4 |
| LAST_ACT_TIME | (HHMMSS) | 4 |
| Last Day Statistics: | | |
| LD_WRONG_CHANS | Number of messages received on wrong channel | 2 |
| LD_MULTI_CHANS | Number of messages received on multiple channels | 2 |
| | Primary Channel: | |
| LDP_MSG_BYTES | Number of bytes of data received | 4 |
| LDP_EXPECTED_MSGS | Number of expected messages | 4 |
| LDP_MISSING_MSGS | Number of missing messages | 4 |
| LDP_ERR_FREE_MSGS | Number of messages received error free | 4 |
| LDP_MSGS_WITH_ERR | Number of messages with associated errors | 4 |
| LDP_GOOD_MSGS | Number of good messages received | 4 |
| LDP_BAD_MSGS | Number of bad messages (parity error) | 2 |
| LDP_ADDR_ERRS | Number of messages with correctable address errors | 2 |
| LDP_RESCHEDULES | Number of messages late/early (partially in window) | 2 |
| LDP_WRONG_TIMES | Number of messages with wrong time (outside window) | 2 |
| | Secondary Channel: | |
| LDS_MSG_BYTES | Number of bytes of data received | 4 |
| LDS_EXPECTED_MSGS | Number of expected messages | 4 |
| LDS_MISSING_MSGS | Number of missing messages | 4 |
| LDS_ERR_FREE_MSGS | Number of messages received error free | 4 |
| LDS_MSGS_WITH_ERR | Number of messages with associated errors | 4 |
| LDS_GOOD_MSGS | Number of good messages received | 4 |
| LDS_BAD_MSGS | Number of bad messages (parity error) | 2 |
| LDS_ADDR_ERRS | Number of messages with correctable address errors | 2 |
| LDS_RESCHEDULES | Number of messages late/early (partially in window) | 2 |
| LDS_WRONG_TIMES | Number of messages with wrong time (outside window) | 2 |
| | Month 1 Statistics (Odd numbered months): | |
| M1_WRONG_CHANS | Number of messages received on wrong channel | 2 |
| M1_MULTI_CHANS | Number of messages received on multiple channels | 2 |
| M1_ACTIVE_DAYS | Number of days the DCP was active: | 2 |
| M1_STATUS_CHANGES | Number of times, on a daily basis, the DCP changed status | 2 |
| | Primary Channel: | |
| MIP_MSG_BYTES | Number of bytes of data received | 4 |
| MIP_EXPECTED_MSGS | Number of expected messages | 4 |
| MIP_MISSING_MSGS | Number of missing messages | 4 |
| MIP_ERR_FREE_MSGS | Number of messages received error free | 4 |
| MIP_MSGS_WITH_ERR | Number of messages with associated errors | 4 |
| MIP_GOOD_MSGS | Number of good messages received | 4 |
| MIP_BAD_MSGS | Number of bad messages (parity error) | 2 |
| MIP_ADDR_ERRS | Number of messages with correctable address errors | 2 |
| MIP_RESCHEDULES | Number of messages late/early (partially in window) | 2 |

| ELEMENT NAME | DESCRIPTION | SIZE IN BYTES |
|------------------------------------|---|---------------|
| M1P_WRONG_TIMES | Number of messages with wrong time (outside window) | 2 |
| | Secondary Channel: | |
| M1S_MSG_BYTES | Number of bytes of data received | 4 |
| M1S_EXPECTED_MSGS | Number of expected messages | 4 |
| M1S_MISSING_MSGS | Number of missing messages | 4 |
| M1S_ERR_FREE_MSGS | Number of messages received error free | 4 |
| M1S_MSGS_WITH_ERR | Number of messages with associated errors | 4 |
| M1S_GOOD_MSGS | Number of good messages received | 4 |
| M1S_BAD_MSGS | Number of bad messages (parity error) | 2 |
| M1S_ADDR_ERRS | Number of messages with correctable address errors | 2 |
| M1S_RESCHEDULES | Number of messages late/early (partially in window) | 2 |
| M1S_WRONG_TIMES | Number of messages with wrong time (outside window) | 2 |
| | Month 2 Statistics (Even numbered months): | |
| M2_WRONG_CHANS | Number of messages received on wrong channel | 2 |
| M2_MULTI_CHANS | Number of messages received on multiple channels | 2 |
| M2_ACTIVE_DAYS | Number of days the DCP was active: | 2 |
| M2_STATUS_CHANGES | Number of times, on a daily basis, the DCP changed status | 2 |
| | Primary Channel: | |
| M2P_MSG_BYTES | Number of bytes of data received | 4 |
| M2P_EXPECTED_MSGS | Number of expected messages | 4 |
| M2P_MISSING_MSGS | Number of missing messages | 4 |
| M2P_ERR_FREE_MSGS | Number of messages received error free | 4 |
| M2P_MSGS_WITH_ERR | Number of messages with associated errors | 4 |
| M2P_GOOD_MSGS | Number of good messages received | 4 |
| M2P_BAD_MSGS | Number of bad messages (parity error) | 2 |
| M2P_ADDR_ERRS | Number of messages with correctable address errors | 2 |
| M2P_RESCHEDULES | Number of messages late/early (partially in window) | 2 |
| M2P_WRONG_TIMES | Number of messages with wrong time (outside window) | 2 |
| | Secondary Channel: | |
| M2S_MSG_BYTES | Number of bytes of data received | 4 |
| M2S_EXPECTED_MSGS | Number of expected messages | 4 |
| M2S_MISSING_MSGS | Number of missing messages | 4 |
| M2S_ERR_FREE_MSGS | Number of messages received error free | 4 |
| M2S_MSGS_WITH_ERR | Number of messages with associated errors | 4 |
| M2S_GOOD_MSGS | Number of good messages received | 4 |
| M2S_BAD_MSGS | Number of bad messages (parity error) | 2 |
| M2S_ADDR_ERRS | Number of messages with correctable address errors | 2 |
| M2S_RESCHEDULES | Number of messages late/early (partially in window) | 2 |
| M2S_WRONG_TIMES | Number of messages with wrong time (outside window) | 2 |
| UPDATE_DATE | Date of last update (YYYYDDD) | 4 |
| Reserve space, 20 bytes, 6 columns | | 20 |

Notes:

(1) The associated statistics maintained for:

- The last full day
- The current month to date
- The previous month

(2) The unique key is platform address, DCP_ADDR.

(3) Row entered by FORTRAN update program - no null fields.

Radio_Description_Table (RDT in DBMS)

100 entries x 321 bytes: 32.1 KBytes

| ELEMENT NAME | DESCRIPTION | SIZE IN BYTES |
|--------------------------------------|---|---------------|
| MANUFACTURER | Manufacturer name for DCPRS | 14 |
| MODEL_NO | Model number for DCPRS | 16 |
| XMIT_RATE | Data transmission rate in bps (100/300/1200) | 2 |
| Platform types supported: | | |
| TYPE_S | Supports self-timed platform (Y or N) | 1 |
| TYPE_R | Supports random platform (Y or N) | 1 |
| TYPE_I | Supports interrogate platform (Y or N) | 1 |
| TYPE_D | Supports dual platform (Y or N) | 1 |
| DATE_CERTIFIED | Date Certified (YYYYMMDD) | 4 |
| Applicable Certifications Standards: | | |
| S2_200_400 | (Y or N) | 1 |
| S24_010 | (Y or N) | 1 |
| S24_011 | (Y or N) | 1 |
| S24_012 | (Y or N) | 1 |
| IDCS_ANNEX_4 | (Y or N) | 1 |
| SPARE_1 | (Y or N) | 1 |
| SPARE_2 | (Y or N) | 1 |
| SPARE_3 | (Y or N) | 1 |
| DCPRS_STATUS | Certification status: N: Nominal P: Pending test R: Requires Recertification | 1 |
| POWER | Power in watts | 5 |
| ANTENNA_TYPE | Antenna type: O: OMNI M: Micro_patch S: Hemispherical Y: Yagi H: Helix A: Aircraft U: Unknown | 1 |
| ANTENNA_MODEL | Antenna Manufacturer and/or model no.: SYN: Synergetics COM: Comant ANX: Anixter HAN: Handar RAY: Rayan STA: Starec SEA: Seavey CHU: CHU CUS: Cushcraft TRA: Transco UNK: Unknown | 16 |
| COMMENTS_1 | Comments | 80 |
| COMMENTS_2 | Comments | 80 |
| UPDATE_DATE | Date of last update (YYYYMMDD) | 4 |
| UPDATE_INI | Userid of last update person | 3 |
| UPDATE_NUMBER | Number of updates | 2 |
| Reserve space, 40 bytes, 7 columns | | 21 |

Notes:

- (1) The key is comprised of MANUFACTURER and Model_NO.
- (2) RDT entry made via PRESENT - only required fields by system are MANUFACTURER and MODEL_NO. Only manager has add/delete/update access.

System_Outage_Log Cause Table(SCT in DBMS)

122 Bytes x 100 entries = 12 KBytes

| ELEMENT NAME | DESCRIPTION | SIZE IN BYTES |
|---------------------|---|---------------|
| OUTAGE_CAUSE | Code number for outage cause (see SOL) | 2 |
| OUTAGE_LABEL | Text description of outage cause | 40 |
| COMMENTS | Optional comments field | 80 |
| | Reserve space, 20 bytes | 20 |

NOTES:

- (1) The key is OUTAGE_CAUSE.
- (2) This table is used in producing the SOL report with labels.

System_Hardware_Status (SHS in DBMS)

600 Components x 100 Bytes : 60 KBytes

| ELEMENT NAME | DESCRIPTION | SIZE IN BYTES |
|-----------------------|---|---------------|
| COMPONENT_ID | Component identifier: | 2 |
| FS: Fall back switch | DK: disk IC: ISI card | |
| SI: Synchronous I/F | AI: Asynchronous I/F | |
| CN: Controller | ME: Memory | |
| TM: Terminal | PN: Printer | |
| DT Telecom DEMOD | DA: ADDs DEMOD | |
| D1: 1200 DEMOD | DS: 300 S DEMOD | |
| DR: 300 R DEMOD | IM: Interrgate Modulator | |
| TO: Old Test XMTR | TN: New Test XMTR | |
| PX: Pilot XMTR | DT: DROT QM: DQM | |
| MA: Asynch Modem | MN: NMC Modem | |
| MW: WWB Modem | DC: DEMOD Chassis | |
| COMPONENT_NO | Number of each given type of component | 2 |
| COMPONENT_TYPE | I: Internal E: External | 1 |
| COMPONENT_STAT | Component Status: | 1 |
| | A: Active S: Spare R: Repair | |
| COMPONENT_LOC | WL: Wallops Logistics | 2 |
| | WR: Wallops Repair | |
| | EM: Equip. Manufacturer | |
| | WD: Wallops DCS | |
| | DS: DAPS | |
| MANUFACTURER | Manufacturer | 12 |
| MODEL_NO | Equipment Model number | 18 |
| SERIAL_NO | Serial number | 24 |
| STATUS_DATE | Date of last status change (YYYYDDD) | 4 |
| STATUS_TIME | Time of last status change (HHMMSS) | 4 |
| FIRST_DATE | Date first in service (YYYYDDD) | 4 |
| DOWN_COUNT | Total number of failures | 2 |
| UPDATE_DATE | Date of last update (YYYYDDD) | 4 |
| UPDATE_INI | Initials last update operator | 3 |
| | Reserve space, 17 bytes, 17 columns | 17 |

Notes:

- (1) The key is COMPONENT_ID and COMPONENT_NO.
- (2) Modifications to this table should be performed through the UPDATE SHS command of the Online Command Interface.

System_Outage_Log (SOL in DBMS)

103 Bytes/failure x 10 failures/day x 365 days = 376 KBytes

| ELEMENT NAME | DESCRIPTION | SIZE IN BYTES |
|--------------|---|---------------|
| DOWN_DATE | Date of failure (YYYYDDD) | 4 |
| DOWN_TIME | Time of failure (HHMMSS) | 4 |
| OUTAGE_TYPE | Outage classification: EI: East DCPI, ER: East DCPR, WI: West DCPI, WR: West DCPR XX: Other | 2 |
| OUTAGE_CAUSE | Code integer number, 1 - 99 | 2 |
| UP_DATE | Date of service restored (YYYYDDD) | 4 |
| UP_TIME | Time of service restored | 4 |
| COMMENTS | Optional comments field | 80 |
| UPDATE_INI | Initials of operator making entry | 3 |
| | Reserve 20 bytes, 5 columns | 20 |

NOTES:

- (1) The key is comprised of DOWN_DATE and DOWN_TIME.
- (2) A record is entered by the operator after every failure is resolved (alternatively, a partial record can be entered at the time of failure, but the operator must then later update the UP_ fields); this is a log for keeping records on system outages, not to monitor the real time status of components. Also note that an entry is made by the operator using PRESENT.

User_Description_Table (UDT in DBMS)

5000 Users x 487 bytes/user : approx. 2.44 MBytes (34 columns)

| ELEMENT NAME | DESCRIPTION | SIZE IN BYTES |
|----------------|---|---------------|
| USER_ID | User ID | 6 |
| USER_TYPE | Government/nongovt ID (Type of user): F-Fed.Government, S-State, D-Domestic, C-Canada, O-Others | 1 |
| USER_NAME | User organization name | 24 |
| PARENT_NAME | Parent organization name | 24 |
| MAJOR_NAME | Major organization name | 24 |
| MOA_ID | Name of organization for MOA | 24 |
| OPR_NAME_LAST | Operating official's last name | 20 |
| OPR_NAME_FIRST | Operating official's first name and initial | 21 |
| OPR_ADDR_LINE1 | Operating official's address, first line (Box #, Building, Suite, etc.) | 35 |
| OPR_ADDR_LINE2 | Operating official's address, second line (Street, Avenue, etc.) | 35 |
| OPR_CITY | Operating official's city | 25 |
| OPR_STATE_PROV | Operating official's state or province (also used for country if USER_TYPE = O) | 30 |
| OPR_ZIP_CDE | Operating official's zip code | 11 |
| OPR_PHONE | Operating official's phone | 20 |
| OPR_FTS | Operating official's FTS phone | 7 |
| OPR_TELEX | Operating official's telex | 20 |
| OPR_FAX | Operating official's FAX phone | 20 |
| PRIME_MEDIUM | Primary medium: D-DOMSAT,T-Telephone,G-direct readout GS ,N-NMC | 1 |
| SIGNOFF_DATE | Date of last user signoff to DAPS (YYYYDDD) | 4 |
| SIGNOFF_TIME | Time of last signoff (HHMMSS) | 4 |
| REQUEST_DATE | Date of last user request for data (YYYYDD) | 4 |
| REQUEST_NUM | Number of requests for request date | 2 |
| LIST1_DAY | Day of last message dissemination (YYYYDDD) | 4 |
| LIST1_TIME | Time of last message dissemination(HHMMSS) | 4 |
| LIST2_DAY | Day of last message dissemination (YYYYDDD) | 4 |
| LIST2_TIME | Time of last message dissemination (HHMMSS) | 4 |
| LIST3_DAY | Day of last message dissemination (YYYYDDD) | 4 |
| LIST3_TIME | Time of last message dissemination (HHMMSS) | 4 |
| LIST4_DAY | Day of last message dissemination (YYYYDDD) | 4 |
| LIST4_TIME | Time of last message dissemination (HHMMSS) | 4 |
| LIST5_DAY | Day of last message dissemination (YYYYDDD) | 4 |
| LIST5_TIME | Time of last message dissemination (HHMMSS) | 4 |
| UPDATE_DATE | Date of last update (YYYYDDD) | 4 |
| UPDATE_ID | Userid of last update person | 6 |
| | Reserve space, 160 bytes, 16 columns | 160 |

Notes:

- (1) The key is USER_ID
- (2) The MOA_ID is checked against the MOA table.
- (3) Fields required at record creation: USER_ID, USER_TYPE, USER_NAME, MOA_ID.
- (4) Modifications to this table should be performed through the UPDATE UDT command of the Online Command Interface.

User_Network_List (UNL in DBMS)

Total of 500000 entries x 15 bytes/entry : 7.5 MBytes

| ----- | | |
|--------------|---------------|---------------|
| ELEMENT NAME | DESCRIPTION | SIZE IN BYTES |
| USER_ID | User ID | 6 |
| LIST_ID | List ID (1-5) | 1 |
| DCP_ADDR | DCP address | 8 |
| ----- | | |

Notes:

- (1) Only the following search key is unique:
USER_ID & LIST_ID & DCP_ADDR
- (2) Primary search key to be used when retrieving the DCPs for a given user's network list:
USER_ID & LIST_ID
- (3) Modifications to this table should be performed through the UPDATE
UNL command of the Online Command Interface.

User_Statistics_Table (UST in DBMS)

5000 Users x 10 Channels/user x 12 months x 51 bytes: 30.6 MBytes (15 columns)

| ----- | | |
|---------------|---|---------------|
| ELEMENT NAME | DESCRIPTION | SIZE IN BYTES |
| USER_ID | User ID | 6 |
| CHAN_ID | Channel ID for DCPs owned by user | 2 |
| SATID | Satellite ID for channel (E/W) | 1 |
| UST_MONTH | Month designation, 1-12 | 2 |
| ASSIGNED_DCPS | Number of DCPs assigned on this channel | 2 |
| ACTIVE_DCPS | Number of DCPs active on channel | 2 |
| ASSIGNED_TIME | Total seconds assigned on this channel | 4 |
| MSG_TIME | Number of seconds used on channel | 4 |
| ERR_FREE_MSGS | Number of messages received error free | 4 |
| MSGGS_WITH_ER | Number of messages with associated errors | 4 |
| EXPECTED_MSGS | Number of expected messages on channel | 4 |
| MISS_MSGS | Number of missing messages | 4 |
| GOOD_MSGS | Number of good messages received on channel | 4 |
| BAD_MSGS | Number of bad messages received on channel | 4 |
| UPDATE_DATE | Date of last update (YYYYYDDD) | 4 |
| | Reserve space, 12 bytes, 12 columns | 12 |
| ----- | | |

Notes:

1. The above estimate assumes the average user has DCPs assigned to 10 channels.
2. Used time, % of time assigned which is actually used, can be computed.
3. Unique key is a combination of USER_ID, CHAN_ID, SATID and MONTH.
4. Row is entered by a FORTRAN update utility - no null fields.

User_Summary_Table(USU in DBMS)

Total of 500 entries x 63 bytes/entry :31.5 KBytes

| ELEMENT NAME | DESCRIPTION | SIZE IN BYTES |
|---------------|---|---------------|
| USU_MONTH | Month designation, 1 - 12 | 2 |
| USER_TYPE | Government/nongovt ID (type of user) F-Fed govt, S-State, D-domestic C-Canada O-Other (other foreign) | 1 |
| MAJOR_NAME | Major organization name (Applies only to large Fed users, else default is OTHER) | 24 |
| S_NUMBER | Number of S type platforms | 4 |
| I_NUMBER | Number of I type platforms | 4 |
| R_NUMBER | Number of R type latforms | 4 |
| D_NUMBER | Number of D type platforms | 4 |
| TOTAL_NUMBER | Total number of platforms assigned | 4 |
| ACTIVE_NUMBER | Total Number of active platforms | 4 |
| DIALIN_NUMBER | Total number of dialin users | 2 |
| DRG_NUMBER | Total number of users wiht direct readout GS | 2 |
| DOMSAT_NUMBER | Total number of DOMSAT users | 2 |
| NMC_NUMBER | Total number of NMC users | 2 |
| UPDATE_DATE | Date of last update (YYYYDDD) | 4 |

Note:

The USU_MONTH, USER_TYPE, and MAJOR_NAME comprise the key for this table.

APPENDIX E DAPS DISPLAYS

173/18:29:13 BACKUP-Y LR SCE SCW IME IMW TT1 TT2 M:04 B:172/14:50 MGR 5
DAPSA> SNAP
COMMAND IN PROGRESS

*MESSAGE FILE ***

Selection By: PLATFORM_ID

Platform: CE459D7E

Start: 89173/16:00:00

User/List:

End: 89173/18:28:58

Channel:

Types: G?WDABTUNINQC

Platform Address: CE459D7E

Uncorrected Addr: CE459D7E

GMD Pointer:2463512

Channel: 035E Code: G

QM:42-ONN IFPD: FF

Length: 67

Start Time: 89173/18:27:15

End Time: 89173/18:27:21

Xmit Time: 89173/18:27:21

#1 7992 7992 7992 7992 7994 7994 7994 7994

#2 1228

FIGURE E-1: MESSAGE FILE

173/18:30:49 BACKUP-Y LR SCE SCW IME IMW TT1 TT2 M:04 B:172/14:50
DAPSA> SNAP
COMMAND IN PROGRESS

MGR 5

***CHANNEL ACTIVITY ***

Platform: CE459D7E Selection By: PLATFORM_ID
 Start: 89173/00:00:00 User/List: Channel:
 End: 89173/18:30:39 Types: G?WDABTUMINQC

| Start Time | End Time | Channel | Status | DAMS QM | Platform |
|---------------------------|----------------|---------|--------|---------|----------|
| GMD | | | | | |
| 89173/18:27:15 2463512 | 89173/18:27:21 | 035E | G | 42-ONN | CE459D7E |
| 89173/14:27:15 2449125 | 89173/14:27:21 | 035E | G | 40-ONN | CE459D7E |
| 89173/10:27:15 2434502 | 89173/10:27:21 | 035E | G | 40-ONN | CE459D7E |
| 89173/06:27:15 2420063 | 89173/06:27:21 | 035E | G | 39-ONN | CE459D7E |
| 89173/02:27:15 2405690 | 89173/02:27:21 | 035E | G | 39-ONN | CE459D7E |

FIGURE E-2: CHANNEL ACTIVITY

173/18:32:38 BACKUP-Y LR SCE SCW IME IMW TT1 TT2 M:04 B:172/14:50 MGR 5
 DAPSA> SNAP
 COMMAND IN PROGRESS

```
***INTERROGATE MODULATOR E QUEUE ***  
  
* DONE QUEUE *  
-- EMPTY --  
  
* WAIT QUEUE *  
-- EMPTY --
```

FIGURE E-3: QUEUE IME/IMW

```
173/18:33:02 BACKUP-Y LR SCE SCW IME IMW TT1 TT2 M:04 B:172/14:50 MGR 5
DAPSA> SNAP
COMMAND IN PROGRESS
```

```
*** TEST TRANSMITTER 1 QUEUE ***
```

```
* DONE QUEUE *
-- EMPTY --
```

```
* WAIT QUEUE *
-- EMPTY --
```

FIGURE E-4: QUEUE TT1/TT2

173/18:35:44 BACKUP-Y LR SCE SCW IME IMW TT1 TT2 M:04 B:172/14:50 MGR 5
DAPSA> SNAP
COMMAND IN PROGRESS

*** SYSTEM SUMMARY ***

| | | | | |
|-----------------------------------|-----------------------|-------------|---------------|-----------------------------|
| ----- | | DOMSAT----- | -----NMC----- | |
| -----DIAL-IN LINES ----Enabled: Y | | | Enabled: N | |
| User | Current | | Total | |
| Transmitted: 62504 | Transmitted: 508 | 1 | 0 | 0 |
| Pending: 0 | Pending: 15054 | 2 | 0 | 0 |
| Retransmissions | Time: 173/14:24:44 | 3 | 0 | 0 |
| Backlog: 139 | | 4 | 0 | 0 |
| Failure: 3 | -- QUALITY MONITOR -- | 5 | 0 | 0 |
| User: 0 | Enabled: Y | 6 | 0 | 0 |
| Pending Retransmission | CRC errors: 0 | 7 | 0 | 0 |
| Backlog Req's: 0 | Seq. errors: 3 | 8 | 0 | 0 |
| Failure Req's: 0 | Last Seq.#: 5384 | 9 | 0 | 73 |
| User Req's: 0 | | 10 | 0 | 613 |
| Tine: 173/18:35:43 | LMD/GMD | | | |
| Last Seq.#: 5417 | LD first: 157/16:11 | | | WATCHDOG |
| | LD Last: 173/18:35 | | | Message Time: 173/18:35:41 |
| | GD First: 144/22:30 | | | M e s s a g e S o u r c e : |
| L(LAN/RS232) | GD Last: 173/18:35 | | | |

FIGURE E-5: SYSTEM_SUMMARY


```
173/18:34:46 BACKUP-Y LR SCE SCW IME IMW TT1 TT2 M:04 B:172/14:50 MGR 5
DAPSA> SNAP
COMMAND IN PROGRESS
```

DOMSAT BACKLOG QUEUE

-- EMPTY --

FIGURE E-6: QUEUE BACKLOG

REPORT DATE/TIME:
12-11-89 18:54:53

DAPS
USER CSUATS DCS RESOURCE UTILIZATION
NOVEMBER 1989

| CHAN-T | #DCPS | % | TIME | %TIM | ERROR | WITH | EXP | MISS | GOOD | |
|---------------|-------|-------|-------|------|-------|-------|------|------|------|------|
| | ASGND | ACT | ASGND | USED | FREE | ERROR | MSGs | | BAD | |
| | | | | | | | | | MSGs | MSGs |
| | | | | | | | | | MSGs | |
| 40W-S | 2 | 100.0 | 28800 | 58.2 | 406 | 72 | 480 | 2 | 442 | 5 |
| 44W-S | 1 | 100.0 | 14400 | 48.4 | 240 | 0 | 240 | 0 | 208 | 0 |
| EAST TOTAL | 0 | .0 | 0 | .0 | 0 | 0 | 0 | 0 | 0 | 0 |
| WEST TOTAL | 3 | 100.0 | 43200 | 54.9 | 646 | 72 | 720 | 2 | 650 | 5 |
| TOTAL | 3 | 100.0 | 43200 | 54.9 | 646 | 72 | 720 | 2 | 650 | 0 |

Explanation of Fields:

CHAN-T - DCS channel number, GOES spacecraft (E/W), channel type (S, I, R or D)

#DCPS - Number of DCPs assigned to the channel.
ASGND

% - Percentage of DCPs assigned to the channel that are active.
ACT

TIME - Number of seconds assigned to the channel for the month
ASGND

%TIM - Percentage of assigned time used on channel.
USED

ERROR - Number of messages received with no associated errors.
FREE

WITH - Number of messages received with associated error(s) ERROR such as a schedule error, PDT entry not complete,
etc.
ERROR

EXP - Number of expected messages; zero for random (R) type channels
MSGs

MISS - Number of missing messages.
MSGs

GOOD - Number of messages received without parity errors.
MSGs

BAD - Number of messages received with parity errors.
MSGs

FIGURE E-7: USER_UTILIZATION

```
173/18:33:47 BACKUP-Y LR SCE SCW IME IMW TT1 TT2 M:04 B:172/14:50 MGR 5
DAPSA> SNAP
COMMAND IN PROGRESS
```

USER RETRANSMISSION QUEUE

- - EMPTY - -

FIGURE E-8:QUEUE USER

173/18:36:32 BACKUP-Y LR SCE SCW IME IMW TT1 TT2 M:04 B:172/14:50 MGR 5
DAPSA> SNAP
COMMAND IN PROGRESS

DIALIN LINE PARMETERS

| Parameter | Description | Value |
|------------------|--|------------|
| LI_MAX_IDLE_SECS | Maximum idle seconds on line before timeout | 60 |
| LI_MAX_TIMEOUTS | Maximum consecutive timeouts before disconnect | 10 |
| LI_MAX_REQS | Maximum daily dissemination requests per user | 10 |
| LI_MAX_MSGS | Maximum messages disseminated per user request | 1000 |
| LI_DEVICE | (1) Device assigned to line 1 | :PER:CON18 |
| LI_DEVICE | (2) Device assigned to line 2 | :PER:CON19 |
| LI_DEVICE | (3) Device assigned to line 3 | :PER:CON20 |
| LI_DEVICE | (4) Device assigned to line 4 | :PER:CON21 |
| LI_DEVICE | (5) Device assigned to line 5 | :PER:C0N22 |
| LI_DEVICE | (6) Device assigned to line 6 | :PER:C0N26 |
| LI_DEVICE | (7) Device assigned to line 7 | :PER:CON27 |
| LI_DEVICE | (8) Device assigned to line 8 | :PER:CON28 |
| LI_DEVICE | (9) Device assigned to line 9 | :PER:C0N29 |
| LI_DEVICE | (10) Device assigned to line 10 | :PER:CON30 |

FIGURE E-9:DIALIN_PARMS

173/18:37:41 BACKUP-Y LR SCE SCW IME IMW TT1 TT2 M:04 B:172/14:50 MGR 5
DAPSA> SNAP
COMMAND IN PROGRESS

GMD PARAMETERS:

GD_FIRST_USED: 1
GD_LAST_USED : 2464137
GD_FIRST_TIME: 144/22:30:13
GD_LAST_TIME : 173/18:37:40
GD_NUM_USED : 2464137

GMS & LMS PARAMETERS:

GM NEXT WORD : 153321251
GM_FREE_WORDS : 90902749
LM_NEXT_WORD : 49439310
LM_FREE_WORDS : 6510206

LMD PARAMETERS:

LD_FIRST_USED: 774533
LD_LAST_USED : 774532
LD_LAST_READ : 774532

LD_FIRST_TIME: 157/16:13:44
LD_LAST_TIME : 173/18:37:40
LD_NUM_USED : 1030826

DOMSAT & NMC PARAMETERS:

DO_CUR_XMIT : 2
DO_LAST_GMD : 2464137
DO_LAST_GMDTIME :
173/18:37:
40
NM_CUR_XMIT : 15165
NM_LAST_GMD : 2448969
NM_LAST_GMDTIME :
173/14:24:
44

FIGURE E-10:GMLM_PARM

173/18:39:51 BACKUP-Y LR SCE SCW IME IMW TT1 TT2 14:04 B:172/14:50 MGR 5
DAPSA> SNAP
COMMAND IN PROGRESS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|------|------|
| 59316/ | 0 | 3E8 | 3641 | 372E | 4640 | 40D5 | 4AC4 | 7AC2 | 5DC2 | 4057 |
| 59326/ | 40FE | 7F64 | 40EA | 40DA | 4340 | 40D6 | 4AC4 | F4C2 | D5C2 | 4057 |
| 59336/ | 4040 | 4061 | 40E5 | 40EF | C75D | 6452 | 4AC4 | EFC2 | 4FC2 | 4057 |
| 59346/ | 40FD | 7F62 | 406B | 4076 | 20B3 | 0 | 3E8 | 0 | 3E9 | 3449 |
| 59356/ | 556 | 45C2 | C25E | E340 | C4E3 | C25E | E340 | C2F8 | C25E | E340 |
| 59406/ | C261 | DCFD | 4C20 | 0 | 3E9 | 0 | 3EA | 2632 | 92FO | C2F8 |
| 59376/ | 40C1 | 4F43 | 40C7 | 7946 | 4AF2 | 40F4 | 7CC2 | C175 | 43FE | 62C1 |
| 59386/ | 527A | 40C8 | 5246 | 5EC4 | 40F4 | FBC2 | 43BF | 43BF | 7054 | 2034 |
| 59396/ | 0 | 3EA | 0 | 3EB | 1635 | C834 | 2320 | 3120 | 2020 | 31B5 |
| 59406/ | 3120 | 2020 | 31B5 | 3120 | 2020 | 31B5 | 3120 | 2020 | 31B5 | 3120 |
| 59416/ | 2020 | 31B5 | 3120 | 2020 | 31B5 | 3120 | 2020 | 31B5 | 3120 | 2020 |
| 59426/ | 31B5 | 310D | 8A23 | 2032 | 2020 | 3232 | 3138 | 2020 | 3232 | 3138 |
| 59436/ | 2020 | 3232 | 3138 | 2020 | 3232 | 3138 | 2020 | 3232 | 3138 | 2020 |
| 59446/ | 3232 | 3138 | 2020 | 3232 | 3138 | 2020 | 3232 | 3138 | D8A | 2320 |
| 59456/ | B320 | 2031 | 32B0 | B020 | 0 | 3EB | 0 | 3EC | 1635 | C834 |
| 59466/ | 494E | 5641 | 4C49 | 4420 | 4443 | 5020 | 4144 | 4452 | 4553 | 5320 |
| 59476/ | 284E | 4F54 | 2049 | 4E20 | 5044 | 5429 | 2020 | 2020 | 2020 | 2020 |
| 59486/ | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | 0 | 3EC |

FIGURE E-11: GMS

173/18:39:02 BACKUP-Y LR SCE SCW IME IMW TT1 TT2 11:04 B:172/14:50 MGR 5
DAPSA> SNAP

COMMAND IN PROGRESS

| | | | | | | | | | |
|------|----|--------------|----------|----------|-------|-------|-----|--------|------|
| 1000 | ** | 144/22:47:09 | 22:47:15 | 3641372E | 117-1 | 59316 | 65 | 34+1NF | |
| | | | | | | | | FF G | |
| | | 144/22:47:16 | 831 | 984 | | | | | |
| 1001 | ** | 144/22:47:14 | 22:47:17 | 34490556 | 128-2 | 59353 | 28 | 36-ONN | |
| | | | | | | | | FF G | |
| | | 144/22:47:18 | 601 | 931 | | | | | |
| 1002 | ** | 144/22:47:18 | 22:47:22 | 263292F0 | 134-2 | 59371 | 45 | 46+1HN | |
| FF G | | | | | | | | | |
| | | 144/22:47:23 | 427 | 999 | | | | | |
| 1003 | ** | 144/22:47:13 | 22:47:23 | AAAAAAAA | 21-1 | 59398 | 120 | 49+1NN | |
| FF G | | | | | | | | | |
| | | 001/00:00:00 | 956 | 956 | | | | | |
| 1004 | ** | 144/22:47:13 | 22:47:23 | AAAAAAAA | 21-1 | 59462 | 60 | 49+1NN | |
| FF G | | | | | | | | | |
| | | 001/00:00:00 | 1003 | 1003 | | | | | |
| 1005 | ** | 144/22:47:16 | 22:47:29 | 8002677A | 34-2 | 59496 | 147 | 44+ONN | |
| FF G | | | | | | | | | |
| | | 144/22:47:29 | 0 | 961 | | | | | |
| 1006 | ** | 144/22:47:16 | 22:47:29 | 8002677A | 34-2 | 59574 | 60 | 44+ONN | FF G |
| | | 144/22:47:29 | 1005 | 1005 | | | | | |
| 1007 | ** | 144/22:47:25 | 22:47:30 | 364141BE | 117-1 | 59608 | 65 | 33+ONP | FF G |
| | | 144/22:47:31 | 488 | 1000 | | | | | |
| 1008 | ** | 144/22:47:23 | 22:47:31 | CE5440A0 | 58-2 | 59645 | 87 | 41-2NN | FF G |
| | | 144/22:47:32 | 0 | 965 | | | | | |

FIGURE E-12: GMD

173/18:42:07 BACKUP-Y LR SCE SCW IME IMW TT1 TT2 11:04 B:172/14:50 MGR 5
DAPSA> SNAP
COMMAND IN PROGRESS

| | | | | | | | | | | |
|-----------|------|------|------|------|------|------|------|------|------|------|
| 74353600/ | 2034 | 0 | 3E7 | 0 | 3E8 | 163B | 217C | dc1 | DFC4 | 20C2 |
| 74353610/ | 4054 | D020 | 0 | 3E8 | 0 | 3E9 | 8640 | 5104 | C1C2 | 40D6 |
| 74353620/ | C240 | D6C2 | 40CE | C240 | CEC2 | 40CE | C240 | 4AC2 | 404A | C640 |
| 74353630/ | 4AC2 | 404A | C240 | 46C1 | 7FFE | C17F | FEC2 | 40C2 | C240 | C2C2 |
| 74353640/ | 404A | C200 | 46C2 | 40C2 | C240 | C2C2 | 40C2 | C240 | 46C2 | 40C2 |
| 74353650/ | C240 | 46C2 | 40CE | C240 | D6C2 | 405B | C240 | DFC2 | 4067 | C240 |
| 74353660/ | 73C2 | 4046 | 20C2 | 4046 | FD40 | 49E6 | 404C | 6E40 | 4AE3 | 42 |
| 74353670/ | E940 | CBEC | 40CB | EF40 | CD58 | 40C5 | C440 | 52EC | 4033 | C020 |
| 74353680/ | 0 | 3E9 | 0 | 3EA | CE64 | 16AC | C446 | 40C7 | 6240 | 5DCD |
| 74353690/ | 40C7 | 5140 | 5DCD | 40C7 | DF40 | 5DCD | 6BF7 | 4020 | 0 | 3EA |
| 74353700/ | 0 | 3EB | 57B1 | 5DE4 | C4D7 | CB45 | 646B | FBDD | 45D5 | 4075 |
| 74353710/ | D540 | 5B4D | D84F | 4368 | 5140 | E349 | 70CC | 4360 | 2034 | 0 |
| 74353720/ | 3EB | 0 | 3EC | 75C0 | 333E | 746 | 4040 | 4040 | 7043 | 4045 |
| 74353730/ | 54F1 | 7F7F | 7F7F | 7F7F | 52CB | 457C | C8D0 | F740 | C440 | 4CD5 |
| 74353740/ | 4068 | 40E0 | 43D0 | 4070 | 54C1 | 6BC2 | CCCD | 40C1 | 40D9 | 45C4 |
| 74353750/ | 4CEO | F740 | C440 | 58D5 | 40F8 | 4061 | 43D0 | 40E0 | 57C1 | 4AC4 |
| 74353760/ | ECCE | 40C1 | 4051 | 45C8 | D340 | FD40 | C440 | DC54 | 40D3 | C176 |
| 74353770/ | 43D0 | 40E0 | D9C1 | D945 | F4CE | 40C1 | 404F | 4654 | D570 | F740 |

FIGURE-13: LMS

DAPSA>SNAP

COMMAND IN PROGRESS

| | | | | | | | | | | |
|----|--------|--------------|----------|----------|-------|----------|-----|--------|------|---|
| 0 | 1000** | 161/18:06:11 | 18:06:13 | 163B217C | 23- 5 | 74353603 | 14 | 48-0NN | FFFF | |
| 10 | 1001** | 161/18:06:02 | 18:06:13 | 86405104 | 1- 9 | 74353614 | 128 | 49-0NP | FFFF | |
| | 1002** | 161/18:06:13 | 18:06:15 | CE6416AC | 23- 6 | 74353682 | 28 | 39+1NN | FFFF | |
| | 1003** | 161/18:06:16 | 18:06:19 | 57B15DE4 | 2-10 | 74353700 | 33 | 48+0NP | FFFF | 0 |
| | 1004** | 161/18:06:03 | 18:06:19 | 75C0333E | 21-10 | 74353721 | 194 | 47+0NN | FFFF | 1 |
| 0 | 1005** | 161/18:06:19 | 18:06:21 | 26324498 | 21- 2 | 74353822 | 27 | 44-4HN | FFFF | 8 |
| 0 | 1006** | 161/18:06:22 | 18:06:24 | 51460680 | 23- 5 | 74353840 | 19 | 43-2NN | FFFF | |
| 0 | 1007** | 161/18:06:24 | 18:06:25 | F7CE71D2 | 3- 6 | 74353854 | 16 | 48-1NP | FFFF | |
| 8 | 1008** | 161/18:06:12 | 18:06:31 | B15F67A2 | 23- 8 | 74353866 | 229 | 45+1NN | FFFF | |
| 0 | 1009** | 161/18:06:22 | 18:06:33 | 326062CE | 24- 8 | 74353985 | 127 | 49-2NN | FFFF | |
| | 1010** | 161/18:06:29 | 18:06:33 | 263257EE | 21- 2 | 74354053 | 45 | 50-3HN | FFFF | 0 |
| | 1011** | 161/18:06:29 | 18:06:34 | 4341B3FA | 22- 4 | 74354080 | 59 | 49-2NN | FFFF | 0 |
| 0 | 1012** | 161/18:06:12 | 18:06:34 | 162CB1B4 | 21- 6 | 74354114 | 275 | 50+1HN | FFFF | |
| 0 | 1013** | 161/18:06:16 | 18:06:36 | 344F0598 | 22- 5 | 74354256 | 245 | 48-0NN | FFFF | |
| 0 | 1014** | 161118:06:14 | 18:06:36 | 163CCOBA | 24- 1 | 74354383 | 272 | 49+0NN | FFFF | |
| 0 | 1015** | 161/18:06:34 | 18:06:38 | 3420FF6E | 22- 9 | 74354523 | 48 | 46-0NN | FFFF | |
| 0 | 1016** | 161/18:06:34 | 18:06:39 | 15D4C370 | 23- 7 | 74354551 | 50 | 46-iNN | FFFF | |
| 0 | 1017** | 161/18:06:17 | 18:06:39 | 51485294 | 21- 3 | 74354580 | 273 | 46+0NN | FFFF | |

FIGURE E-14: LMD

173/18:43:05 BACKUP-Y LR SCE SCW IME IMW TT1 TT2 M:04 B:172/14:50 MGR 5
DAPSA> SNAP
COMMAND IN PROGRESS

*** DEMODULATOR SUMMARY ***

PAGE 1 OF 7

| | | | | | | | | | | | | | | |
|-------------|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|--|--|--|
| DAMS Unit: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | | | | | | |
| Enabled: | Y | Y | Y | Y | N | N | N | | | | | | | |
| GOES SC: | E | E | E | E | E | E | E | | | | | | | |
| Data Rate: | 100 | 100 | 100 | 100 | 100 | 100 | 100 | | | | | | | |
| Error Mask: | N | N | N | N | N | N | N | | | | | | | |

| | | | | | | | | | | | | | | | |
|---------|---|-----|---|-----|--|---|-----|----|-----|---|-----|---|-----|---|-----|
| Slot1: | Y | 151 | Y | 007 | | Y | 083 | Y | 003 | N | 000 | N | 000 | N | 000 |
| Slot2: | Y | 077 | Y | 055 | | Y | 093 | Y | 013 | N | 000 | N | 000 | N | 000 |
| Slot3: | Y | 224 | Y | 230 | | Y | 021 | Y | 017 | N | 000 | N | 000 | N | 000 |
| Slot4: | Y | 095 | Y | 232 | | Y | 228 | Y | 019 | N | 000 | N | 000 | N | 000 |
| Slot5: | Y | 117 | Y | 005 | | Y | 115 | Y* | 027 | N | 000 | N | 000 | N | 000 |
| Slot6: | Y | 061 | Y | 009 | | Y | 129 | Y | 035 | N | 000 | N | 000 | N | 000 |
| Slot7: | Y | 071 | Y | 011 | | Y | 041 | Y | 047 | N | 000 | N | 000 | | N |
| | | | | | | | | | | | | | | | 000 |
| Slot8: | Y | 125 | Y | 015 | | Y | 091 | Y | 067 | N | 000 | N | 000 | N | 000 |
| Slot9: | Y | 121 | Y | 043 | | Y | 127 | Y | 234 | N | 000 | N | 000 | N | 000 |
| Slot10: | Y | 023 | Y | 079 | | Y | 025 | Y* | 119 | N | 000 | N | 000 | | N |
| | | | | | | | | | | | | | | | 000 |

FIGURE E-15:DEM0D_SUMMARY

173/18:44:52 BACKUP-Y LR SCE SCW IME IMW TT1 TT2 M:04 B:172/14:50 MGR 5
DAPSA> SNAP
COMMAND IN PROGRESS

*** DEMOD DRAWER 1 PARAMETERS ***

| Parameter | Description | Value |
|-----------|--|-------|
| ENABLED | Demod drawer enabled (Y/N) | Y |
| SCID | GOES spacecraft assigned | E |
| DATA_RATE | Data rate assigned (100/300/1200 baud) | 100 |
| MAX_SLOTS | Maximum slots available (1..10) | 10 |
| ERR_MASK | Error masking enabled (Y/N) | N |

FIGURE E-16: DEMOD DRAWER

173/18:45:07 BACKUP-Y LR SCE SCW IME IMW TT1 TT2 M:04 B:172/14:50 MGR 5
DAPSA> SNAP
COMMAND IN PROGRESS

*** DEMOD SLOT PARAMETERS ***

Drawer = 1 Slot = 1

| <u>Parameter</u> | <u>Description</u> | <u>Value</u> |
|------------------|--------------------------------------|--------------|
| ENABLED | Demodulator slot enabled (Y/N/T) | Y |
| CHANNEL | Channel number assigned to this slot | 151 |

FIGURE E-17: DEMOD_SLOT

173/18:46:11 BACKUP-Y LR SCE SCW IME IMW TT1 TT2 M:04 B:172/14:50 MGR 5
DAPSA> SNAP
COMMAND IN PROGRESS

*** LOG ***

| Start: | 89173/15:00:00 | End: | 89173/18:46:03 | Types: | SPCLOMUDB |
|--------------|----------------|--|----------------|--------|-----------|
| 173/15:02:24 | P | 3 CONSECUTIVE ERRORS FOR PLATFORM 3448D1C4 | | B1 | |
| 173/15:02:45 | C | UNEXPECTED TEST TRANSMISSION ON 22-W | | B11 | |
| 173/15:03:26 | P | 3 CONSECUTIVE ERRORS FOR PLATFORM 16C7F49C | | B1 | |
| 173/15:05:43 | C | UNEXPECTED TEST TRANSMISSION ON 24-W | | B11 | |
| 173/15:05:45 | P | 3 CONSECUTIVE ERRORS FOR PLATFORM 8641D5EA | | B1 | |
| 173/15:06:30 | P | 3 CONSECUTIVE ERRORS FOR PLATFORM 344892CE | | B1 | |
| 173/15:06:43 | P | 3 CONSECUTIVE ERRORS FOR PLATFORM B15DE442 | | B1 | |
| 173/15:08:09 | P | 3 CONSECUTIVE ERRORS FOR PLATFORM CE557912 | | B1 | |
| 173/15:08:20 | P | 3 CONSECUTIVE ERRORS FOR PLATFORM 3448713C | | B1 | |
| 173/L5:08:41 | C | UNEXPECTED TEST TRANSMISSION ON 28-W | | B11 | |
| 173/15:09:38 | C | 5 CONSECUTIVE ERRORS FOR CHAN 21-E | | B2 | |
| 173/15:11:21 | C | 5 CONSECUTIVE ERRORS FOR CHAN 13-E | | B2 | |
| 173/15:11:40 | C | UNEXPECTED TEST TRANSMISSION ON 44-W | | B11 | |

FIGURE E-18: LOG

173/18:47:43 BACKUP-Y LR SCE SCW IME IMW TT1 TT2 M:04 B:172/14:50 MGR 5
DAPSA> SNAP
COMMAND IN PROGRESS

*** ALARMS ***

Start: 89169/14:02:35 End: 89173/18:47:35 Types: SPCLOMUDB

FIGURE E- 19: ALARM

173/18:49:1.3 BACKUP-Y LR SCE SCW IME IMW TT1 TT2 M:04 B:172/14:50 MGR 5
DAPSA> SNAP
COMMAND IN PROGRESS

*** SYSTEM HARDWARE STATUS ***

COMPONENT ID: FS COMPONENT NUMBER: 0001

| Parameter name | Parameter Description | Current Value |
|------------------|----------------------------|----------------|
| COMPONENT_TYPE | Component Type | : I |
| COMPONENT_STATUS | Component Status | : A |
| COMPONENT_LOC | Component Location | : DS |
| MANUFACTURER | Manufacturer | : ARC |
| MODEL_NO | Model Number | : DPS-4-12C111 |
| SERIAL_NUMBER | Serial Number | : 001 |
| STATUSDATE | Date of Last Status Change | : ***** |
| STATUS_TIME | Time of Last Status Change | : 120000 |
| FIRST_DATE | Date First in Service | : 1989061 |
| DOWN_COUNT | Total Number of Failures | : 001 |

Last Update: 1989046

Updated By: WFD

FIGURE E-20: HARDWARE STATUS (SHS)

173/18:51:00 BACKUP-Y LR SCE SCW IME IMW TT1 TT2 M:04 B:172/14:50 MGR 5
DAPSA> SNAP
COMMAND IN PROGRESS

*** BULLETINS ***

Start: 89169/14:08:02End: 89173/18:50:52 Types: SPCLOMUDB

| | | |
|--------------|---|------|
| 170/13:23:23 | #0 DAPS WILL BE DOING A MANUAL SWITCHOVER @ 1330Z | A201 |
| 172/14:13:40 | #0 SWITCH OVER AT 14:25 | B201 |
| 172/14:50:35 | #0 DAPS SWITCH OVER AT 14:55 | A201 |

FIGURE E-21: BULLETIN

173/18:54:21 BACKUP-Y LR SCE SCW IME IMW TT1 TT2 M:00 B:172/14:50 MGR 5
DAPSA> SNAP
COMMAND IN PROGRESS

| Date: 89172/09:28:09

Source: OPR

ARCHIVE DBMS AT 172:09:30

*** PLATFORM CE459D7E PARAMETERS *** INDEX = 1165

| <u>Parameter</u> | <u>Description</u> | <u>Value</u> |
|---------------------------|--|-----------------|
| OWNER_ID | User Id of owner: | CENS1 |
| PRIME_TYPE | Primary type: S: Self-timed, R: Random, I: Interrogate, D: Dual | S |
| PRIME_CHAN | Primary channel (1- 266): | 035 |
| PRIME_SCID | Primary GOES spacecraft assigned: E: East, W: West | E |
| SCND_ADDR | Secondary address: | |
| SCND_TYPE | Secondary type: R: Random, I: Interrogate, or Null | |
| SCND_CHAN | Secondary channel (1 - 266): | 000 |
| SCND_SCID | Secondary GOES spacecraft assigned: E: East, W: West | |
| TRIGGER_MODE | Trigger mode: S: Special, T: Test or Null | |
| FIRST_XMT | First trans./interrog. (HHMMSS): | 022700 |
| XMT_PERIOD | Time between trans./interrog. (HHMMSS): | 040000 |
| XMT_WINDOW | Transmission window (S/D types)(MMSS): | 0100 |
| XMT_RATE | Transmission rate (100/300/1200): | 0100 |
| MAX_RETRIES | Max. number of interrogation retries: | 00 |
| DATA_FORMAT | Data format (A: ASCII, B: Binary): | A |
| PRIME_PREAMBLE | Prime preamble (L: Long, S: Short): | L |
| SCND_PREAMBLE | Secondary preamble (L: Long, S: Short): | |
| LOC_CODE | Location code: | ND |
| LOC_REGION | Location category: A: United States, B: Canada, C: South America, 0: Other | A |
| LOC_NAME | Location: | HOMME |
| LATITUDE | Latitude (DDMMSS): | 482420 |
| LDNGITUDE | Longitude (DDMMSS): | -0974710 |
| MIN_ELEVATION | Min. elevation angle of platform (DD): | 05 |
| CATEGORY | Platform category: F: Fixed-buoy, D: Drifting-buoy, A: Aircraft S: Ship, 0: Other, B: Balloon L: Land-based | L |
| MANUFACTR_ID | DCPRS manufacturer name: | SYNERGETICS |
| MODEL_NO | DCPRS model number: | 3401A/3421A |
| SEASON_ID | Seasonal indicator: | N |
| NMC_FLAG | NMC dissemination (Y/N): | Y |
| NMC_DESCRIPTOR | NMC data descriptor: | PHND30 |
| ASSIGN_DATE | Date address assigned (YYYYKMDD): | 19810120 |
| DATE_DEPLOY | Date deployed (YYYYMMDD): | 19890101 |
| DATE_REDEPLOY | Date redeployed (YYYYMMDD): | 00000000 |
| PMaint_NAME | Maintenance official name: | GORDON HEITZMAN |
| PMaint_PHONE | Maintenance official phone: | (612) 220-0620 |
| PMaint_FTS | Maintenance official FTS phone: | |
| PMaint_FAX | Maintenance official FAX phone: | |
| PMaint_TELEX | Maintenance official telex: | |
| ERR_FREQ | Consecutive failures before error: | 003 |
| * SHEF CODES * | | |
| SHEF_CODE1: | HP SHEF_CODE2: SHEF_CODE3: SHEF_CODE4: SHEF_CODE5: | |
| SHEF_CODE 6: | SHEF_CODE7: SHEF_CODE 8: SHEF_CODE9: SHEF_CODE10: | |
| SHEF_CODE11: | SHEF_CODE12: SHEF_CODE13: SHEF_CODE14: SHEF_CODE15: | |
| Status (Active/Deactive): | | A |
| Last active date/time: | | 89173/18:27:21 |
| Date of last update: | | 1989118 |
| Updated by: | | MGR |
| Entry complete (Y/N): | | Y |
| Edit number: | | 00000 |

FIGURE E-23: PLATFORM_PARMS

12-11-89 18:53:07

| ADDRESS | CHAN-T | CUR CHGS | A/D | #ERR | #WITH | #MISS | RECVD | DATA | TIME | |
|----------|--------|----------|--------|--------|-------|--------|--------|------|------|----|
| | | A/D | A/D | DAY | FREE | ERR | % | A/L | A/L | |
| 21000078 | 40W-S | A | 0 | 282 | 240 | 0 | 0 | 86.7 | 402 | 40 |
| | | | #WRONG | CHAN = | 0 | #MULTI | CHAN = | 0 | | |
| 2100130E | 40W-S | A | 0 | 282 | 166 | 72 | 2 | 99.6 | 340 | 35 |
| | | | #WRONG | CHAN = | 0 | #MULTI | CHAN = | 0 | | |
| 21002694 | 44W-S | A | 0 | 282 | 240 | 0 | 0 | 86.7 | 318 | 33 |
| | | | #WRONG | CHAN = | 0 | #MULTI | CHAN = | 0 | | |

| TYP | #DCPS | #ERR FREE | #WITH ERR | RECVD % | #MISS | DATA A/L | TIME A/L | WRONG CHANS | MULTI CHANS |
|-----|-------|--------------|--------------|------------|-------|-------------|-------------|----------------|----------------|
| S | 3 | 646 | 72 | 91.0 | 2 | 353 | 36 | 0 | 0 |

ADDRESS- DCP address. A '*' indicates an incomplete PDT entry. If DCP has a secondary type, secondary statistics are reported on next line. If secondary address is same as primary address it will be blank.

MULTI CHANS - Number of messages received on multiple channels.

FIGURE E-24 PLATFORM SUMMARY

173/18:58:24 BACKUP-Y LR SCE SCW IME IMW TT1 TT2 M:00 B:172/14:50

MGR 5

DAPSA> SNAP

COMMAND IN PROGRESS

*** CHANNEL 035E PARAMETERS ***

| <u>Parameter</u> | <u>Description</u> | <u>Value</u> |
|---|--|--------------|
| CHAN_TYPE | Channel type (S-Self timed,R-Random, I-Interrogate, D-Dual) | S |
| DATA_RATE | Data rate in bps (100/300/1200) | 100 |
| AUTO_TEST | Auto test transmission option enabled (Y/N) | N |
| AUTO_TTID | Auto test transmitter to be used (1/2) | 1 |
| MAX_TESTS | Maximum number of test retries | 0 |
| ERR_FREQ | Consecutive number of failures before reporting error | 5 |
| CAL_OPTION | Calibration option (A-Auto,M-Manual,D-Disabled) | D |
| MANUAL_BIAS | Manually entered calibration value for signal strength | 0 |
| BLK_ENABLED | Blocking enabled on this channel (Y/N) | N |
| BLK_ID | Test transmitter to be used for blocking (1/2) | |
| FIRST_BLK | Time of first block (HHMMSS) | 000000 |
| BLK_WINDOW | Duration of block. (HHMMSS) | 000000 |
| BLK_PERIOD | Time period between blocks (HHMMSS) | 000000 |
| Entry last updated: 1989032 Updated by: | | MGR |

FIGURE E-25: CHANNEL PARMS (CDT)

*** USER CENCS1 DESCRIPTION ***

| <u>Parameter</u> | <u>Description</u> | <u>Value</u> |
|---|------------------------------|----------------------------|
| USER_TYPE | User Type | F |
| USER_NAME | User organization name | ST. PAUL DISTRICT |
| PARENT_NAME | Parent organization name | CORPS OF ENGINEERS |
| MAJOR_NAME | Major organization name | DEPT OF DEFENSE |
| MOA_ID | Name of organization for MOA | CORPS OF ENGINEERS (DOD) |
| OPR_NAME_LAST | Oper. official's last name | HEITZMAN |
| OPR_NAME_FIRST | Oper. official's first name | MR. GORDON |
| OPR_ADDR_LINE1 | Operating official's address | |
| OPR_ADDR_LINE2 | Operating official's address | 1421 USPO AND CUSTOM HOUSE |
| OPR_CITY | Operating official's city | ST PAUL |
| OPR_STATE_PROV | Oper. official's state/prov. | MN |
| OPR_ZIP_CODE | Oper. official's zip code | 55101 |
| OPR_PHONE | Operating official's phone | (612)220-0620 |
| OPR_FIRS | Operating official's FTS- | |
| OPR_TELEX | Operating official's telex | |
| OPR_FAX | Operating official's FAX | (612)290-2256 |
| PRIME_MEDIUM | Primary medium | G |
| Date/time of last dissemination for list 1: | | 0000000 000000 |
| Date/time of last dissemination for list 2: | | 0000000 000000 |
| Date/time of last dissemination for list 3: | | 0000000 000000 |
| Date/time of last dissemination for list 4: | | 0000000 000000 |
| Date/time of last dissemination for list 5: | | 0000000 000000 |
| Date/time of last user signoff: 0000000 | | 000000 |
| Date of last user dissemination request: | | 0000000 |
| Number of dissemination requests: 000000 (REQUEST_NULL) | | |
| Date of last update to this UDT entry: | | 1989158 |
| Last updated by: | | MGR |

FIGURE E-26: USER PARMS (UDT)

173/19:00:34 BACKUP-Y LR SCE SCW IME IMW TT1 TT2 M:00 B:172/14:50 MGR 5
DAPSA> SNAP
COMMAND IN PROGRESS

**** NETWORK LIST ****

| USER ID =CENCS1 | | | | LIST ID =1 | | | | |
|-----------------|----------|----------|----------|------------|----------|----------|----------|----------|
| CE456DFA | CE45705E | CE457E8C | CE458ODA | CE458E08 | CE4593AC | CE459D7E | CE730EA2 | CE7543B4 |
| CE754D66 | CE7550C2 | CE755E10 | CE756558 | CE756B8A | CE75762E | CE7578FC | CE7586AA | CE758878 |
| CE7595DC | CE759BOE | CE75A046 | CE75AE94 | CE75B330 | CE75BDE2 | CE75C5AO | CE75CB72 | CE75D6D6 |
| CE75D804 | CE75E34C | CE75ED9E | CE75FO3A | CE75FEE8 | CE7607B0 | CE760962 | CE7614C6 | CE761A14 |
| CE76215C | CE762F8E | CE76322A | CE763CF8 | CE7644BA | CE764A68 | CE7657CC | CE76591E | CE766256 |
| CE766C84 | CE767120 | CE767FF2 | CE7681A4 | CE768F76 | CE7692D2 | CE769C00 | CE76A748 | CE76A99A |
| CE76B43E | CE76BAEC | CE76C2AE | CE76CC7C | CE76D1D8 | CE76DFOA | CE76E442 | CE76EA90 | CE76F734 |
| CE76F9E6 | CE7D4712 | CE7D49CO | CE7D5464 | CE7D5AB6 | CE7D61FE | CE7D6F2C | CE7D7288 | CE7D7C5A |
| CE7D820C | CE7D8CDE | CE7D917A | CE7D9FA8 | CE7DA4EO | CE7DAA32 | CE7DB796 | CE7DB944 | CE7DC106 |
| CE7DD270 | CE7DDCA2 | CE7DE7EA | CE7DE938 | CE7DF49C | CE7DFA4E | CE7E0316 | CE7EODC4 | CE7E1060 |
| CE7E1EB2 | CE7E25FA | CE7E2B28 | CE7E368C | CE7E385E | CE7E401C | CE7E4ECE | CE7E536A | |

FIGURE E-27: NETWORK_LIST (UNL)

*** RADIO DESCRIPTION ***

| | | | |
|-------------------------------------|------------------|------------------|----------------------|
| Manufacturer: | HANDAR | Model Number: | 520A |
| Data Rate (bps): | 100 | Power (watts): | 10 |
| Platform types supported: | Antenna Type: | U | |
| Self-Timed: Y | 0: Omni | M: Micro-patch | |
| Interrogate: N | Y: Yagi | E: Hemispherical | |
| Random: N | H: Helix | A: Aircraft | |
| Dual: N | U: Unknown | | |
| Certification Status: N | Antenna Model: | UKN | |
| N: Nominal P: Pending | SYN: Synergetics | COM: Comant | |
| R: Requires Recertification | ANX: Anixter | HAN: Handar | |
| Applicable Certification Standards: | RAY: Rayan | STA: Starec | |
| S2-200-400: Y IDCS-ANNEX-4: N | SEA: Seavey | CHU: CHU | |
| S24-010: N Spare 1: | CUS: Cushcraft | TRA: Transco | |
| S24-011: N Spare 2: | UNK: Unknown | | |
| S24-012: N Spare 3: | | | |
| Date Certified (YYYYMMDD): | 19770217 | | |
| Comments: | | | |
| Last Update: | 19890201 | Updated by: | MGR Update Number: 0 |

FIGURE E-28: RADIO_DESCRIPTION FOR A SPECIFIC DCPRS

173/19:01:21 BACKUP-Y LR SCE SCW IME IMW TT1 TT2 M:00 B:172/14:50 MGR 5
DAPSA> SNAP
COMMAND IN PROGRESS

RADIO DESCRIPTION TABLE SUMMARY

| <u>MANUFACTURER</u> | <u>MODEL NUMBER</u> | <u>DATE CERTIFIED</u> | <u>STATUS</u> |
|---------------------|---------------------|-----------------------|---------------|
| AMERICAN ELEC. | DCP-11R | 1977/10/01 | N |
| AMERICAN ELEC. | DCP-II | 1977/02/03 | N |
| BALL BROTHERS | GOES/GDCP | 1975/04/01 | N |
| BRISTOL AEROSP | 695-07 | 1975/12/12 | N |
| BRISTOL AEROSP | 696-07-02-1200 | 1979/02/27 | N |
| BRISTOL AEROSP | 697-07700-1 | 1984/12/06 | N |
| BRISTOL AEROSP | 697-07700-3 | 1984/12/06 | N |
| CEIS ESPACE | BM-18/20(20W) | 1987/06/21 | N |
| CEIS ESPACE | BM-18/40(40W) | 1987/06/21 | N |
| CEIS ESPACE | BM-18/5(5W) | 1987/06/21 | N |
| DATAWARE DEV | WRANSAC-G-SUB | 1981/05/01 | N |
| HANDAR | 520A | 1977/02/17 | N |
| HANDAR | 521A | 1977/02/17 | N |

FIGURE E-28: RADIO_DESCRIPTION (SUMMARY)

173/19:02:42 BACKUP-Y LR SCE SCW IME IMW TT1 TT2 M:00 B:172/14:50 MGR 5
DAPSA> SNAP
COMMAND IN PROGRESS

*** CONSOLE 1 PARAMETERS ***

| <u>Parameter</u> | <u>Description</u> | <u>Value</u> |
|---------------------|--|--------------|
| CO_AUDIO_ALARM (1) | Audio alarm rate (seconds); 0 - Disabled | 10 |
| CO_REFRESH_RATE (1) | Display refresh rate (seconds) | 5 |
| CO_PRINTER (1) | Printer used for PRINT/SNAP commands | @LQP1 |
| CO_DEVICE (1) | Name of device assigned (:PER:CONxx) | :PER:CON10 |

FIGURE E-29: CONSOLE PARMS

173/19:04:27 BACKUP-Y LR SCE SCW IME IMW TT1 TT2 M:00 B:172/14:50 MGR 5

DAPSA> SNAP

COMMAND IN PROGRESS

| ...TEST SUMMARY ... | | | | EAST CHANNELS | | | | |
|---------------------|---|--------------|----|---------------|----|----------------|-----|--------------|
| 1 | | 001/00:00:00 | 33 | 001/00:00:00 | 65 | 001/00:00:00 | 97 | 001/00:00:00 |
| 3 | M | 146/17:15:06 | 35 | 001/00:00:00 | 67 | 001/00:00:00 | 99 | 001/00:00:00 |
| 5 | M | 146/18:50:06 | 37 | 001/00:00:00 | 69 | 001/00:00:00 | 101 | 001/00:00:00 |
| 7 | M | 001/00:00:00 | 39 | 001/00:00:00 | 71 | 001/00:00:00 | 103 | 001/00:00:00 |
| 9 | | 001/00:00:00 | 41 | 001/00:00:00 | 73 | 001/00:00:00 | 105 | 001/00:00:00 |
| 11 | | 001/00:00:00 | 43 | 001/00:00:00 | 75 | 001/00:00:00 | 107 | 001/00:00:00 |
| 13 | | 001/00:00:00 | 45 | 001/00:00:00 | 77 | 001/00:00:00 | 109 | 001/00:00:00 |
| 15 | M | 146/14:22:47 | 47 | 001/00:00:00 | 79 | 001/00:00:00 | 111 | 001/00:00:00 |
| 17 | | 001/00:00:00 | 49 | 001/00:00:00 | 81 | 001/00:00:00 | 113 | 001/00:00:00 |
| 19 | | 001/00:00:00 | 51 | 001/00:00:00 | 83 | 001/00:00:00 | 115 | 001/00:00:00 |
| 21 | | 001/00:00:00 | 53 | 001/00:00:00 | 85 | 001/00:00:00 | 117 | 001/00:00:00 |
| 23 | | 001/00:00:00 | 55 | 001/00:00:00 | 87 | 001/00:00:00 | 119 | 001/00:00:00 |
| 25 | | 001/00:00:00 | 57 | 001/00:00:00 | 89 | 001/00:00:00 | 121 | 001/00:00:00 |
| 27 | | 001/00:00:00 | 59 | 001/00:00:00 | 91 | 001/00:00:00 | 123 | 001/00:00:00 |
| 29 | | 001/00:00:00 | 61 | 001/00:00:00 | 93 | 001/00:00:00 | 125 | 001/00:00:00 |
| 31 | | 001/00:00:00 | 63 | 001/00:00:00 | 95 | M 146/18:22:06 | 127 | 001/00:00:00 |

FIGURE E-32: TEST SUMMARY

173/19:06:00 BACKUP-Y LR SCE SCW IME IMW TT1 TT2 M:00 B:172/14:50 MGR 5
DAPSA> SNAP
COMMAND IN PROGRESS

*** CHANNEL 3E STATISTICS ***

| Message Activity | | Test Transmissions | |
|---------------------|--------------|------------------------|--------------|
| Bytes received: | 64233 | Last tested: | 146/17:15:06 |
| Seconds used : | 5884 | Test status: | M |
| Good messages: | 449 | Signal strength: | 40 |
| Parity errors: | 14 | Frequency offset: | -0 |
| Invalid addresses: | 0 | Modulation index: | N |
| Missing messages: | 11 | Test quality: | N |
| Consecutive errors: | 0 | Total transmissions: | 0 |
| Last active: | 173/18:59:31 | Missing transmissions: | 0 |
| | | Parity errors: | 0 |
| | | Correctable address: | 0 |
| | | Bad quality: | 0 |

FIGURE E-33:CHANNEL_STATS

DAPSA> SNAP
 COMMAND IN PROGRESS

*** CHANNEL SUMMARY *** SATELLITE: EAST

| | | | | | | | |
|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1 0000U | 35 0406S | 69 0000U | 103 0000U | 137 0000U | 171 0000U | 202 0000U | 236 0000U |
| 3 0401S | 37 0000U | 71 0107S | 105 0000U | 139 0000U | 173 0000U | 204 0000U | 238 0000U |
| 5 0205S | 39 0000U | 73 0000U | 107 0000U | 141 0000U | 175 0000U | 206 0000U | 240 0000U |
| 7 0201S | 41 0307S | 75 0000U | 109 0000U | 143 0000U | 177 0000U | 208 0000U | 242 0000U |
| 9 0206S | 43 0209S | 77 0102S | 111 0000U | 145 0000U | 179 0000U | 210 0000U | 244 0000U |
| 11 0207S | 45 0000U | 79 0210S | 113 0000U | 147 0000U | 181 0000U | 212 0000U | 246 0000U |
| 13 0402S | 47 0407S | 81 0000U | 115 0305R | 149 0000U | 183 0000U | 214 0000U | 248 0000U |
| 15 0208S | 49 0000U | 83 0301R | 117 0105R | 151 0101R | 185 0000U | 216 0000U | 250 0000U |
| 17 0403S | 51 0000U | 85 0000U | 119 0410R | 153 0000U | 187 0000U | 218 0000U | 252 0000U |
| 19 0404S | 53 0000U | 87 0000U | 121 0109R | 155 0000U | 189 0000U | 220 0000U | 254 0000U |
| 21 0303S | 55 0202S | 89 0000U | 123 0000U | 157 0000U | 191 0000U | 222 0000U | 256 0000U |
| 23 0110S | 57 0000U | 91 0308S | 125 0108R | 159 0000U | 193 0000U | 224 0103D | 258 0000U |
| 25 0310S | 59 0000U | 93 0302S | 127 0309R | 161 0000U | 195 0000U | 226 0000U | 260 0000U |
| 27 0405S | 61 0106S | 95 0104I | 129 0306R | 163 0000U | 197 0000U | 228 0304D | 262 0000U |
| 29 0000U | 63 0000U | 97 0000U | 131 0000U | 165 0000U | 199 0000U | 230 0203D | 264 0000U |
| 31 0000U | 65 0000U | 99 0000U | 133 0000U | 167 0000U | | 232 0204U | 266 0000U |
| 33 0000U | 67 0408S | 101 0000U | 135 0000U | 169 0000U | | 234 0409D | |

FIGURE E-34: CHANNEL SUMMARY

DAPSA> SNAP
COMMAND IN PROGRESS

*** CHANNEL SCHEDULE ***

CHANNEL: 3E START TIME: 19:00:00 END TIME: 20:00:00

| START | END | PLATFORM | START | END | PLATFORM |
|----------|----------|----------|----------|----------|----------|
| 19:05:00 | 19:05:59 | 3A0006D8 | 19:06:00 | 19:06:59 | 3A0015AE |
| 19:07:00 | 19:07:59 | 16CB301E | 19:10:00 | 19:10:59 | 16CB485C |
| 19:12:00 | 19:12:59 | 16CB5B2A | 19:14:00 | 19:14:59 | 16CB6EBO |
| 19:15:00 | 19:15:59 | 16CB7314 | 19:16:00 | 19:16:59 | 16CB7DC6 |
| 19:18:00 | 19:18:59 | 16CB8D42 | 19:21:00 | 19:21:59 | 16CBA57C |
| 19:22:00 | 19:22:59 | 16CBABAE | 19:23:00 | 19:23:59 | 16CBB6OA |
| 19:55:00 | 19:55:59 | 4747C32C | 19:56:00 | 19:56:59 | 4748C5BE |
| 19:57:00 | 19:57:59 | 4748D6C8 | 19:58:00 | 19:58:59 | 4748E352 |
| 19:59:00 | 19:59:59 | 4748F024 | | | |

FIGURE E-35: CHANNEL SCHEDULE

APPENDIX F: REPORT FORMATS

| | |
|-------|--|
| F-1: | LONG LOOK ANGLE REPORT |
| F-2: | SHORT LOOK ANGLE REPORT |
| F-3: | DAILY PLATFORM ERROR SUMMARY REPORT |
| F-4: | PLATFORM PERFORMANCE SUMMARY |
| F-5: | DAILY TEST TRANSMISSION AND CHANNEL FAILURE REPORT |
| F-6: | GOES DCS CHANNEL UTILIZATION REPORT |
| F-7: | USER DCS RESOURCE UTILIZATION REPORT |
| F-8: | USER SUMMARY REPORT |
| F-9: | PIE CHART, ALL USERS |
| F-10: | PIE CHART, FEDERAL USERS |
| F-11: | TEST TRANSMITTER REPORT |
| F-12: | SYSTEM OUTAGE LOG REPORT |

REPORT DATE/TIME:
6-22-89 20:09:15

DAPS

"LONG" LOOK ANGLE REPORT FOR DCP ADDRESS CE459D7E

DCP ADDR = CE459D7E DCP TYPE = S PRIME S/C = E MINIMUM ELEVATION = 5
LATITUDE = 482420 LONGITUDE = -974710
GOES EAST ELEVATION = 25.89 AZIMUTH =138.62 VISIBILITY = YES **
GOES WEST ELEVATION = 23.67 AZIMUTH =226.14 VISIBILITY = YES
GOES MID ELEVATION = 33.50 AZIMUTH =194.26 VISIBILITY = YES

END OF REPORT
NUMBER OF DCPS PROCESSED = 1

REPORT DATE/TIME:
03-16-89 09:26:05

DAPS

"SHORT" LOOK ANGLE REPORT FOR DCP ADDRESSES IN L00K2.FIL

| | | |
|-------------------------------------|---------------------------|------------------------|
| DCP ADDR = 15D151D2 | DCP TYPE = SPRIME S/C = W | MINIMUM ELEVATION = 5 |
| LATITUDE 151000LONGITUDE = 1454500 | | |
| GOES EAST | ELEVATION = -60.78 | AZIMUTH = 65.76 |
| GOES WEST | ELEVATION = 2.35 | AZIMUTH = 93.03 |
| GOES MID | ELEVATION = -23.09 | AZIMUTH = 85.79 |
| VISIBILITY = NO | | |
| | | |
| DCP ADDR = 15D16448 | DCP TYPE = SPRIME S/C = W | MINIMUM ELEVATION = 5 |
| LATITUDE 141000LONGITUDE = 1454100 | | |
| GOES EAST | ELEVATION = -60.78 | AZIMUTH = 66.67 |
| GOES WEST | ELEVATION = 1.78 | AZIMUTH = 92.68 |
| GOES MID | ELEVATION = -23.69 | AZIMUTH = 85.91 |
| VISIBILITY = NO | | |
| | | |
| DCP ADDR = 15D28064 | DCP TYPE = SPRIME S/C = W | MINIMUM ELEVATION = 18 |
| LATITUDE 655200LONGITUDE = -1494800 | | |
| GOES EAST | ELEVATION = -6.71 | AZIMUTH = 94.21 |
| GOES WEST | ELEVATION = 15.01 | AZIMUTH = 164.59 |
| GOES MID | ELEVATION = 9.37 | AZIMUTH = 136.14 |
| VISIBILITY = NO | | |
| | | |
| DCP ADDR = 15D4A696 | DCP TYPE = SPRIME S/C = W | MINIMUM ELEVATION = 18 |
| LATITUDE 645400LONGITUDE = -1462500 | | |
| GOES EAST | ELEVATION = -5.35 | AZIMUTH = 97.25 |
| GOES WEST | ELEVATION = 16.33 | AZIMUTH = 168.17 |
| GOES MID | ELEVATION = 11.08 | AZIMUTH = 139.35 |
| VISIBILITY = NO | | |
| | | |
| DCP ADDR = 15D4B5E0 | DCP TYPE = SPRIME S/C = W | MINIMUM ELEVATION = 18 |
| LATITUDE 645300LONGITUDE = -1471500 | | |
| GOES EAST | ELEVATION = -5.58 | AZIMUTH = 96.49 |
| GOES WEST | ELEVATION = 16.27 | AZIMUTH = 167.26 |
| GOES MID | ELEVATION = 10.85 | AZIMUTH = 138.50 |
| VISIBILITY = NO | | |
| | | |
| DCP ADDR = 15D4C370 | DCP TYPE = SPRIME S/C = W | MINIMUM ELEVATION = 18 |
| LATITUDE 642800LONGITUDE = -1465500 | | |
| GOES EAST | ELEVATION = -5.39 | AZIMUTH = 96.77 |
| GOES WEST | ELEVATION = 16.73 | AZIMUTH = 167.58 |
| GOES MID | ELEVATION = 11.27 | AZIMUTH = 138.74 |
| VISIBILITY = NO | | |
| | | |
| DCP ADDR = 15D4D006 | DCP TYPE = SPRIME S/C = W | MINIMUM ELEVATION = 18 |
| LATITUDE 642400LONGITUDE = -1465700 | | |
| GOES EAST | ELEVATION = -5.40 | AZIMUTH = 96.73 |
| GOES WEST | ELEVATION = 16.79 | AZIMUTH = 167.54 |
| GOES MID | ELEVATION = 11.31 | AZIMUTH = 138.69 |
| VISIBILITY = NO | | |
| | | |
| DCP ADDR = 15D4C370 | DCP TYPE = SPRIME S/C = W | MINIMUM ELEVATION = 18 |
| LATITUDE 643400LONGITUDE = -1490600 | | |
| GOES EAST | ELEVATION = -6.32 | AZIMUTH = 94.80 |
| GOES WEST | ELEVATION = 16.39 | AZIMUTH = 165.20 |
| GOES MID | ELEVATION = 10.54 | AZIMUTH = 136.55 |
| VISIBILITY = NO | | |
| | | |
| DCP ADDR = 15D591F6 | DCP TYPE = SPRIME S/C = W | MINIMUM ELEVATION = 18 |
| LATITUDE 625200LONGITUDE = -157C900 | | |
| GOES EAST | ELEVATION = -9.77 | AZIMUTH = 87.56 |
| GOES WEST | ELEVATION = 16.84 | AZIMUTH = 156.16 |
| GOES MID | ELEVATION = 9.07 | AZIMUTH = 128.12 |
| VISIBILITY = NO | | |

Report Date/Time:
6-22-89 00:04:10

DAPS
DAILY PLATFORM ERROR SUMMARY REPORT
DAY - 172

| ADDRESS | EXPECTED MSGs | TOTAL #MSGs | #ADDR ERRS | #RSCHD ERRS | #WRONG TIME ERRS | #WRONG CHAN ERRS | #MULTI CHAN ERRS |
|----------|------------------|----------------|---------------|----------------|------------------------|------------------------|------------------------|
| 010051DE | 83 | 83 | 0 | 0 | 0 | 0 | 0 |
| 012007C8 | 16 | 13 | 0 | 0 | 8 | 0 | 0 |
| 01203252 | 16 | 4 | 0 | 0 | 4 | 0 | 0 |
| 0120622E | 4 | 2 | 0 | 0 | 2 | 0 | 0 |
| 01501112 | 4 | 4 | 0 | 0 | 3 | 0 | 0 |
| 01806478 | 16 | 16 | 0 | 0 | 0 | 0 | 0 |
| 0180770E | 16 | 8 | 0 | 0 | 0 | 0 | 0 |
| 1180878A | 16 | 8 | 0 | 0 | 0 | 0 | 0 |
| 1180D7F6 | 16 | 16 | 0 | 0 | 0 | 0 | 0 |
| 11810364 | 16 | 32 | 0 | 0 | 32 | 0 | 0 |
| 118175F4 | 16 | 8 | 0 | 0 | 0 | 0 | 0 |
| 1181A39C | 4 | 7 | 0 | 0 | 6 | 0 | 0 |
| 14006A38 | 8 | 8 | 0 | 0 | 0 | 0 | 0 |
| 1400B282 | 8 | 8 | 0 | 8 | 0 | 0 | 0 |
| FA42D244 | 8 | 8 | 0 | 0 | 0 | 0 | 0 |
| 1A4520F4 | 8 | 8 | 0 | 0 | 8 | 0 | 0 |
| 1A60433C | 8 | 5 | 0 | 0 | 5 | 0 | 0 |

TOTAL # OF PLATFORMS WITH ERRORS : 951.00
TOTAL # OF PLATFORMS ACTIVE : 5649.00
OF ACTIVE PLATFORMS WITH ERRORS : 16.83

USERS THAT EXCEEDED THEIR DAILY TIME QUOTA

USER FAANIT EXCEEDED THEIR DAILY TIME QUOTA
QUOTA = 420 USED = 12640

USER QUTRON EXCEEDED THEIR DAILY TIME QUOTA
QUOTA = 240 USED = 1946

PLATFORMS THAT EXCEEDED THE DAILY TIME QUOTA

| | | | |
|----------|----------|--------------------------------|------------------|
| PLATFORM | 2631B312 | EXCEEDED ITS DAILY TIME QUOTA: | TIME USED = 42 |
| PLATFORM | CE45DE74 | EXCEEDED ITS DAILY TIME QUOTA: | TIME USED = 69 |
| PLATFORM | 86400178 | EXCEEDED ITS DAILY TIME QUOTA: | TIME USED = 2408 |
| PLATFORM | 8640120E | EXCEEDED ITS DAILY TIME QUOTA: | TIME USED = 2465 |
| PLATFORM | 86402794 | EXCEEDED ITS DAILY TIME QUOTA: | TIME USED = 2456 |
| PLATFORM | 864034E2 | EXCEEDED ITS DAILY TIME QUOTA: | TIME USED = 2482 |
| PLATFORM | 86404272 | EXCEEDED ITS DAILY TIME QUOTA: | TIME USED = 2511 |
| PLATFORM | 8640649E | EXCEEDED ITS DAILY TIME QUOTA: | TIME USED = 2534 |
| PLATFORM | 864077E8 | EXCEEDED ITS DAILY TIME QUOTA: | TIME USED = 2534 |

Report Date/Time:
12-11-89 18:57:142

DAPS
DCP PERFORMANCE SUMMARY REPORT

REPORT OPTIONS SELECTED:

C, CURRENT MONTH = 12/89
M, LAST FULL MONTH = 11/89

USER OR ALL: CSUATS

DCP PERFORMANCE SUMMARY REPORT FOR USER CSUATS

| STA | ADDRESS | CHAN-T | CUR A/D | CHGS A/D | A/D DAY | #ERR FREE | #WITH ERR | #MISS | RECVD | DATA % | TIME | A/L A/L |
|-----|----------|--------|------------|-------------|------------|--------------|--------------|-------|--------|-----------|------|------------|
| C | 21000078 | 40W-S | A | 0 | 282 | 80 | 0 | 0 | 100.0 | 314 | 36 | |
| | | | | | #WRONG | CHAN= | 0 | | #MULTI | CHAN = | 0 | |
| M | | 40W-S | | 0 | 282 | 240 | | 0 | 86.7 | 402 | 40 | |
| | | | | | #WRONG | CHAN= | 0 | | #MULTI | CHAN = | 0 | |
| C | 2100130E | 40W-S | A | 0 | 282 | 80 | 0 | 0 | 100.0 | 343 | 35 | |
| | | | | | #WRONG | CHAN= | 0 | | #MULTI | CHAN = | 0 | |
| M | | 40W-S | | 0 | 282 | 166 | 72 | 2 | 99.6 | 340 | 35 | |
| | | | | | #WRONG | CHAN= | 0 | | #MULTI | CHAN = | 0 | |
| C | 21002694 | 44W-S | A | 0 | 282 | 80 | 0 | 0 | 100.0 | 276 | 30 | |
| | | | | | #WRONG | CHAN= | 0 | | #MULTI | CHAN = | 0 | |
| M | | 44W-S | | 0 | 282 | 240 | 0 | 0 | 86.7 | 318 | 33 | |
| | | | | | #WRONG | CHAN= | 0 | | #MULTI | CHAN = | 0 | |

USER SUBTOTALS: TOTAL DCPS = 3

| STA | TYP | #DCPS | #ERR FREE | #WITH ERR | RECVD % | #MISS | DATA A/L | TIME A/L | WRONG CHANS | MULTI CHANS |
|-----|-----|-------|--------------|--------------|------------|-------|-------------|-------------|----------------|----------------|
| C | S | 3 | 240 | 0 | 100.0 | 0 | 321 | 33 | 0 | 0 |
| M | S | 3 | 646 | 72 | 91.0 | 2 | 353 | 36 | 0 | 0 |

Report Date/Time:
6-22-89 00:04:09

DAPS
DAILY TEST TRANSMISSION and CHANNEL FAILURE REPORT
DAY - 172

| <u>TEST TRANSMISSIONS</u> | | | | | | | <u>CHANNEL</u> | | | |
|---------------------------|-----------------|--------------|--------------|-------------|--------------|------------|----------------|---------------|-----------|--------------|
| CHAN | DEMODO /SLOT | TEST MSGS | MISS NSGS | PAR ERRS | ADDR ERRS | BAD QMS | #EXP MSGS | TOTAL MSGS | # MISS | #ADDR ERR |
| 3E | 4/1 | 6 | 0 | 0 | 0 | 0 | 576 | 565 | 19 | 0 |
| 5E | 2/5 | 6 | 0 | 0 | 0 | 0 | 584 | 546 | 50 | 3 |
| 7E | 2/1 | 6 | 0 | 0 | 0 | 0 | 1208 | 1165 | 80 | 14 |
| 9E | 2/6 | 7 | 0 | 0 | 0 | 0 | 820 | 787 | 47 | 19 |
| 11E | 2/7 | 7 | 0 | 0 | 0 | 0 | 568 | 525 | 52 | 1 |
| 13E | 4/2 | 7 | 0 | 0 | 0 | 0 | 672 | 651 | 47 | 1 |
| 15E | 2/8 | 8 | 0 | 0 | 0 | 0 | 560 | 571 | 5 | 0 |
| 17E | 4/3 | 6 | 0 | 0 | 0 | 0 | 1068 | 1052 | 54 | 14 |
| 19E | 4/4 | 6 | 0 | 0 | 0 | 0 | 928 | 898 | 60 | 3 |
| 21E | 3/3 | 6 | 0 | 0 | 0 | 0 | 774 | 844 | 110 | 125 |
| 23E | 1/10 | 7 | 0 | 0 | 0 | 0 | 984 | 1001 | 53 | 41 |
| 25E | 3/10 | 6 | 0 | 0 | 0 | 0 | 582 | 719 | 41 | 162 |
| 27E | 4/5 | 4 | 0 | 0 | 0 | 0 | 960 | 834 | 557 | 0 |
| 35E | 4/6 | 7 | 0 | 0 | 0 | 0 | 942 | 962 | 41 | 25 |
| 41E | 3/7 | 5 | 0 | 0 | 0 | 0 | 1356 | 1312 | 77 | 0 |
| 43E | 2/9 | 6 | 0 | 0 | 0 | 0 | 1158 | 1138 | 67 | 25 |
| 47E | 4/7 | 7 | 0 | 0 | 0 | 0 | 346 | 332 | 87 | 18 |
| 55E | 2/2 | 6 | 0 | 0 | 0 | 0 | 948 | 912 | 100 | 14 |
| 61E | 1/6 | 6 | 0 | 0 | 0 | 0 | 264 | 259 | 35 | 1 |
| 67E | 4/8 | 5 | 0 | 0 | 0 | 0 | 1074 | 1058 | 34 | 0 |
| 71E | 1/7 | 6 | 0 | 0 | 0 | 0 | 204 | 174 | 43 | 2 |
| 77E | 1/2 | 6 | 0 | 0 | 0 | 0 | 1128 | 1083 | 84 | 3 |
| 79E | 2/10 | 6 | 0 | 0 | 0 | 0 | 504 | 850 | 213 | 346 |
| 83E | 3/1 | 6 | 0 | 0 | 0 | 0 | 4 | 4 | 0 | 0 |
| 91E | 3/8 | 7 | 0 | 0 | 0 | 0 | 50 | 50 | 6 | 0 |
| 93E | 3/2 | 7 | 0 | 0 | 0 | 0 | 620 | 633 | 7 | 19 |
| 95E | 1/4 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 115E | 3/5 | 5 | 0 | 0 | 0 | 0 | 1641 | 1641 | 0 | 146 |
| 117E | 1/5 | 6 | 0 | 0 | 0 | 0 | 576 | 1251 | 0 | 133 |
| 119E | 4/10 | 5 | 0 | 0 | 0 | 0 | 958 | 958 | 0 | 479 |
| 121E | 1/9 | 4 | 0 | 0 | 0 | 0 | 1118 | 1118 | 0 | 1 |
| 125E | 1/8 | 1 | 0 | 0 | 0 | 0 | 3504 | 3504 | 0 | 46 |
| 127E | 3/9 | 0 | 0 | 0 | 0 | 0 | 508 | 508 | 0 | 3 |
| 129E | 3/6 | 1 | 0 | 0 | 0 | 0 | 849 | 849 | 0 | 14 |
| 151E | 1/1 | 6 | 0 | 0 | 0 | 0 | 111 | 111 | 0 | 0 |
| 224E | 1/3 | 0 | 0 | 0 | 0 | 0 | 74 | 158 | 0 | 91 |
| 228E | 3/4 | 0 | 0 | 0 | 0 | 0 | 108 | 65 | 0 | 31 |
| 230E | 2/3 | 0 | 0 | 0 | 0 | 0 | 224 | 171 | 0 | 32 |
| 232E | 2/4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 234E | 4/9 | 0 | 0 | 0 | 0 | 0 | 60 | 0 | 0 | 0 |
| 2W | 22/1 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 |
| 4W | 23/10 | 7 | 0 | 0 | 0 | 0 | 318 | 310 | 14 | 6 |
| 6W | 24/1 | 7 | 0 | 0 | 0 | 0 | 1140 | 1103 | 82 | 3 |
| 10W | 24/2 | 6 | 0 | 0 | 0 | 0 | 896 | 881 | 47 | 2 |
| 14W | 23/3 | 7 | 0 | 0 | 0 | 0 | 960 | 923 | 82 | 13 |
| 16W | 23/1 | 6 | 0 | 0 | 0 | 0 | 684 | 676 | 29 | 13 |
| 22W | 24/3 | 6 | 0 | 0 | 0 | 0 | 666 | 638 | 45 | 10 |

| F-5 | | | | | | | | | | | |
|------|-------|---|---|---|---|---|------|------|-----|----|-----|
| 24W | 24/4 | 7 | 0 | 0 | 0 | 0 | 288 | 280 | 18 | | 9 |
| 26W | 21/10 | 7 | 0 | 0 | 0 | 0 | 1080 | 1021 | 36 | | 11 |
| 28W | 24/5 | 6 | 0 | 0 | 0 | 0 | | 688 | 697 | 50 | 25 |
| 30W | 24/6 | 4 | 0 | 0 | 0 | 0 | 944 | 911 | 84 | | 3 |
| 34W | 23/2 | 6 | 0 | 0 | 0 | 0 | 828 | 810 | 134 | | 12 |
| 36W | 22/3 | 5 | 0 | 0 | 0 | 0 | 960 | 937 | 92 | | 31 |
| 38W | 24/7 | 6 | 0 | 0 | 0 | 0 | 656 | 629 | 32 | | 1 |
| 40W | 22/4 | 7 | 0 | 0 | 0 | 0 | 1052 | 1041 | 36 | | 2 |
| 42W | 22/5 | 6 | 0 | 0 | 0 | 0 | | 939 | 969 | 54 | 31 |
| 44W | 24/8 | 4 | 0 | 0 | 0 | 0 | 824 | 803 | 109 | | 2 |
| 48W | 23/4 | 6 | 0 | 0 | 0 | 0 | 976 | 969 | 14 | | 31 |
| 50W | 22/9 | 6 | 0 | 0 | 0 | 0 | 168 | 144 | 24 | | 0 |
| 52W | 24/9 | 7 | 0 | 0 | 0 | 0 | 1066 | 1078 | 37 | | 32 |
| 54W | 22/10 | 7 | 0 | 0 | 0 | 0 | 264 | 226 | 39 | | 1 |
| 56W | 22/2 | 6 | 0 | 0 | 0 | 0 | 780 | 766 | 52 | | 0 |
| 58W | 21/1 | 5 | 0 | 0 | 0 | 0 | 1242 | 1239 | 95 | | 7 |
| 60W | 21/8 | 5 | 0 | 0 | 0 | 0 | 896 | 422 | 47 | | 8 |
| 62W | 21/3 | 6 | 0 | 0 | 0 | 0 | 1104 | 756 | 117 | | 2 |
| 64W | 21/6 | 6 | 0 | 0 | 0 | 0 | 1320 | 1281 | 102 | | 3 |
| 66W | 21/9 | 5 | 0 | 0 | 0 | 0 | 1224 | 1239 | 76 | | 17 |
| 72W | 23/7 | 6 | 0 | 0 | 0 | 0 | 426 | 422 | 10 | | 2 |
| 80W | 23/8 | 6 | 0 | 0 | 0 | 0 | 624 | 756 | 282 | | 200 |
| 96W | 23/9 | 7 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | | 6 |
| 118W | 23/5 | 5 | 0 | 0 | 0 | 0 | 1581 | 1581 | | 0 | 27 |
| 124W | 21/5 | 6 | 0 | 0 | 0 | 0 | 141 | 141 | | 0 | 1 |
| 126W | 21/4 | 5 | 0 | 0 | 0 | 0 | 998 | 998 | | 0 | 5 |
| 128W | 23/6 | 3 | 0 | 0 | 0 | 0 | 1931 | 1931 | 0 | | 75 |
| 134W | 21/2 | 0 | 0 | 0 | 0 | 0 | 7127 | 7127 | 0 | | 12 |
| 224W | 24/10 | 0 | 0 | 0 | 0 | 0 | 74 | 102 | 0 | | 59 |
| 228W | 21/7 | 0 | 0 | 0 | 0 | 0 | 108 | 92 | 0 | | 40 |
| 230W | 22/6 | 0 | 0 | 0 | 0 | 0 | 224 | 153 | 0 | | 23 |
| 232W | 22/7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 |
| 234W | 22/8 | 0 | 0 | 0 | 0 | 0 | 60 | 8 | 0 | | 3 |

REPORT DATE/TIME:
6-06-89 17:05:30

DAPS
GOES DCS CHANNEL UTILIZATION

MAY 1989

| CHANNEL | SATID | TYPE | DCPS ASSIGNED | DCPS ACTIVE | % OF ASSIGNED USED | AVG TIME USED | % AVAIL USED |
|-------------------|-------|------|------------------|----------------|-----------------------|------------------|-----------------|
| 00095 | E | I | 0000 | 0000 | .0 | 15 | .0 |
| 00096 | W | I | 0000 | 0000 | .0 | 6 | .0 |
| INTERROGATE TOTAL | | | 0000 | 00000 | .0 | 11 | .0 |
| 00083 | E | R | 0007 | 0006 | 85.7 | 41 | .0 |
| 00115 | E | R | 0000 | 0000 | 85.7 | 316 | .4 |
| 00117 | E | R | 0012 | 0012 | 100.0 | 2668 | 3.1 |
| 00119 | E | R | 0034 | 0004 | 11.8 | 0 | .0 |
| 00121 | E | R | 0029 | 0023 | 79.3 | 6211 | 7.2 |
| 00125 | E | R | 0027 | 0013 | 48.1 | 2480 | 2.9 |
| 00127 | E | R | 0000 | 0000 | 48.1 | 45 | .1 |
| 00129 | E | R | 0053 | 0050 | 94.3 | 298 | .3 |
| 00151 | E | R | 0005 | 0000 | .0 | 336 | .4 |
| 00118 | W | R | 0000 | 0000 | .0 | 574 | .7 |
| 00124 | W | R | 0004 | 0000 | .0 | 67 | .1 |
| 00126 | W | R | 0000 | 0000 | .0 | 208 | .2 |
| 00128 | W | R | 0000 | 0000 | .0 | 805 | .9 |
| 00134 | W | R | 0050 | 0050 | 100.0 | 2948 | 3.4 |
| RANDOM TOTAL | | | 00221 | 00158 | 71.5 | 1214 | 1.4 |
| 00003 | E | S | 0098 | 0067 | 68.4 | 799 | .9 |
| 00005 | E | S | 0164 | 0070 | 42.7 | 856 | 1.0 |
| 00007 | E | S | 0200 | 0185 | 92.5 | 2034 | 2.4 |
| 00009 | E | S | 0151 | 0102 | 67.5 | 808 | .9 |
| 00011 | E | S | 0083 | 0049 | 59.0 | 846 | 1.0 |
| 00013 | E | S | 0109 | 0087 | 79.8 | 1002 | 1.2 |
| 00015 | E | S | 0056 | 0044 | 78.6 | 1067 | 1.2 |
| 00017 | E | S | 0164 | 0152 | 92.7 | 1660 | 1.9 |
| 00019 | E | S | 0146 | 0109 | 74.7 | 955 | 1.1 |
| 00021 | E | S | 0207 | 0123 | 59.4 | 1778 | 2.1 |
| 00023 | E | S | 0198 | 0160 | 80.8 | 1826 | 2.1 |
| 00025 | E | S | 0146 | 0090 | 61.6 | 1638 | 1.9 |
| 00027 | E | S | 0000 | 0000 | 61.6 | 1151 | 1.3 |
| 00035 | E | S | 0160 | 0143 | 89.4 | 1708 | 2.0 |
| 00041 | E | S | 0235 | 0222 | 94.5 | 2537 | 2.9 |
| 00043 | E | S | 0199 | 0169 | 84.9 | 1488 | 1.7 |
| 00047 | E | S | 0111 | 0043 | 38.7 | 572 | .7 |
| 00055 | E | S | 0177 | 0152 | 85.9 | 1585 | 1.8 |
| 00061 | E | S | 0038 | 0017 | 44.7 | 532 | .6 |
| 00067 | E | S | 0184 | 0173 | 94.0 | 1797 | 2.1 |
| 00071 | E | S | 0076 | 0046 | 60.5 | 415 | .5 |
| 00077 | E | S | 0239 | 0190 | 79.5 | 2715 | 3.1 |
| 00079 | E | S | 0042 | 0022 | 52.4 | 3223 | 3.7 |
| 00091 | E | S | 0036 | 0006 | 16.7 | 100 | .1 |
| 00093 | E | S | 0086 | 0040 | 46.5 | 1556 | 1.8 |
| 00002 | W | S | 0066 | 0000 | .0 | 0 | .0 |
| 00004 | W | S | 0133 | 0049 | 36.8 | 520 | .6 |

| | | | | | | | | |
|-------------------|---|---|-------|-------|------|------|-----|-----|
| 00006 | W | S | 0240 | 0183 | 76.2 | 2466 | 2.9 | |
| 00010 | W | S | 0120 | 0085 | 70.8 | 936 | 1.1 | |
| 00014 | W | S | 0157 | 0102 | 65.0 | 1255 | 1.5 | |
| 00016 | W | S | 0166 | 0075 | 45.2 | 1013 | 1.2 | |
| 00022 | W | S | 0128 | 0078 | 60.9 | 817 | .9 | |
| 00024 | W | S | 0102 | 0034 | 33.3 | 732 | .8 | |
| 00026 | W | S | 0000 | 0000 | 33.3 | 2223 | 2.6 | |
| 00028 | W | S | 0078 | 0037 | 47.4 | 335 | .4 | |
| 00030 | W | S | 0161 | 0103 | 64.0 | 1204 | 1.4 | |
| 00034 | W | S | 0223 | 0139 | 62.3 | 1478 | 1.7 | |
| 00036 | W | S | 0187 | 0158 | 84.5 | 993 | 1.1 | |
| 00038 | W | S | 0117 | 0078 | 66.7 | 1179 | 1.4 | |
| 00040 | W | S | 0111 | 0093 | 83.8 | 1364 | 1.6 | |
| 00042 | W | S | 0163 | 0159 | 97.5 | 1488 | 1.7 | |
| 00044 | W | S | 0146 | 0078 | 53.4 | 1242 | 1.4 | |
| 00046 | W | S | 0177 | 0000 | .0 | 0 | .0 | |
| 00048 | W | S | 0178 | 0118 | 66.3 | 1818 | 2.1 | |
| 00050 | W | S | 0057 | 0009 | 15.8 | 132 | .2 | |
| 00052 | W | S | 0187 | 0179 | 95.7 | 1341 | 1.6 | |
| 00054 | W | S | 0060 | 0012 | 20.0 | 550 | .6 | |
| 00056 | W | S | 0176 | 0121 | 68.7 | 1749 | 2.0 | |
| 00058 | W | S | 0219 | 0209 | 95.4 | 1988 | 2.3 | |
| 00060 | W | S | 0178 | 0111 | 62.4 | 1100 | 1.3 | |
| 00062 | W | S | 0208 | 0182 | 87.5 | 3138 | 3.6 | |
| 00064 | W | S | 0240 | 0218 | 90.8 | 3760 | 4.4 | |
| 00066 | W | S | 0216 | 0205 | 94.9 | 1768 | 2.0 | |
| 00072 | W | S | 0107 | 0091 | 85.0 | 1023 | 1.2 | |
| 00080 | W | S | 0044 | 0023 | 52.3 | 2588 | | 3.0 |
| SELF—TIMED TOTAL | | | 07650 | 05390 | 70.5 | 1361 | 1.6 | |
| 00224 | E | D | 0024 | 0015 | 62.5 | 296 | .3 | |
| 00228 | E | D | 0019 | 0011 | 57.9 | 89 | .1 | |
| 00230 | E | D | 0065 | 0029 | 44.6 | 174 | .2 | |
| 00234 | E | D | 0015 | 0004 | 26.7 | 10 | .0 | |
| 00224 | W | D | 0000 | 0000 | 26.7 | 95 | .1 | |
| 00228 | W | D | 0000 | 0000 | 26.7 | 38 | .0 | |
| 00230 | W | D | 0000 | 0000 | 26.7 | 109 | .1 | |
| 00234 | W | D | 0000 | 0000 | 26.7 | 49 | .1 | |
| DUAL TOTAL | | | 00123 | 00059 | 48.0 | 107 | .1 | |
| 00262 | W | I | 0000 | 0000 | 48.0 | 0 | .0 | |
| INTERROGATE TOTAL | | | 00000 | 00000 | 48.0 | 0 | .0 | |
| EAST TOTAL | | | 03595 | 02628 | 73.1 | 1221 | 1.4 | |
| WEST TOTAL | | | 04399 | 02979 | 67.7 | 1100 | 1.3 | |

REPORT DATE/TIME:
12-11-89 18:56:38

DAPS
USER DCS RESOURCE UTILIZATION
NOVEMBER 1989

USER ID = CSUATS
PARENT NAME =

USER NAME = ATMOSPHERIC SCIENCE DEPT
MAJOR NAME = COLORADO STATE UNIV.

| CHAN-T | #DCPS | % | TIME | %TIM | ERROR | WITH | EXP | MISS | GOOD | BAD |
|--------|-------|-------|-------|------|-------|-------|------|------|------|------|
| | ASGND | ACT | ASGND | USED | FREE | ERROR | MSGs | MSGs | MSGs | MSGs |
| 40W-S | 2 | 100.0 | 28800 | 58.2 | 406 | 72 | 480 | 2 | 442 | 5 |
| 44W~S | 1 | 100.0 | 14400 | 48.4 | 240 | 0 | 240 | 0 | 208 | 0 |
| EAST | | | | | | | | | | |
| TOTAL | 0 | .0 | 0 | .0 | 0 | 0 | 0 | 0 | 0 | 0 |
| WEST | | | | | | | | | | |
| TOTAL | 3 | 100.0 | 43200 | 54.9 | 646 | 72 | 720 | 2 | 650 | 5 |
| TOTAL | 3 | 100.0 | 43200 | 54.9 | 646 | 72 | 720 | 2 | 650 | 0 |

REPORT DATE/TIME
06-20-89 18:57:55

DAPS
USER SUMMARY REPORT FOR MAY 1989
FEDERAL USERS

DCP TYPE

| DEPT OF AGRICULTURE | S | I | R | D | ASSGN | ACTIVE | %ACTIVE |
|--------------------------|-----|---|----|----|-------|--------|---------|
| FOREST SERVICE | | | | | | | |
| ALASKA REGION | 17 | 0 | 0 | 0 | 17 | 10 | 58.82 |
| EASTERN REGION | 0 | 0 | 2 | 0 | 2 | 2 | 100.00 |
| INTER-MTN FIRE Sd. LAB | 4 | 0 | 0 | 0 | 4 | 2 | 50.00 |
| INTERMOUNTAIN REGION R4 | 36 | 0 | 0 | 0 | 36 | 27 | 75.00 |
| NO EAST STATE & PRIV FOR | 13 | 0 | 0 | 0 | 13 | 11 | 84.62 |
| NORTHERN REGION | 18 | 0 | 0 | 0 | 18 | 11 | 61.11 |
| PACIFIC NO WEST STATION | 5 | 0 | 0 | 0 | 5 | 3 | 60.00 |
| PACIFIC NORTHWEST REGION | 123 | 0 | 0 | 0 | 123 | 93 | 75.61 |
| PACIFIC SOUTHWEST REGION | 44 | 0 | 0 | 0 | 44 | 34 | 77.27 |
| ROCKY MOUNTAIN REGION | 25 | 0 | 0 | 0 | 25 | 20 | 80.00 |
| ROCKY MOUNTAIN STATION | 3 | 0 | 0 | 0 | 3 | 0 | .00 |
| SOUTHWESTERN REGION | 21 | 0 | 0 | 0 | 21 | 18 | 85.71 |
| WASHINGTON DC | 20 | 0 | 0 | 0 | 20 | 5 | 25.00 |
| DEPT OF COMMERCE | | | | | | | |
| NATL MARINE FISHERIES | | | | | | | |
| AUKE BAY LAB | 11 | 0 | 0 | 0 | 11 | 4 | 36.36 |
| NOAA | | | | | | | |
| GRT LKS ENVIR RESCH LAB | 3 | 0 | 0 | 0 | 3 | 2 | 66.67 |
| NAT'L DATA BUOY CENTER | 154 | 0 | 0 | 0 | 154 | 84 | 54.55 |
| NATL WEATHER SERVICE | 250 | 0 | 7 | 15 | 272 | 198 | 72.79 |
| NOAA ENV.RES LAB ERLAEL | 2 | 0 | 0 | 0 | 2 | 0 | .00 |
| NOAA PAC MARINE ENVIR LB | 18 | 0 | 0 | 0 | 18 | 6 | 33.33 |
| NOAA STREX PROGRAM NCAR | 3 | 0 | 0 | 0 | 3 | 3 | 100.00 |
| NOAA WAVE PROP LAB (WPL) | 4 | 0 | 0 | 0 | 4 | 1 | 25.00 |
| NOS OCEAN SYS DIV OMA/R | 72 | 0 | 0 | 0 | 72 | 38 | 52.78 |
| NOS SEAS PROGRAM | 348 | 0 | 0 | 70 | 418 | 129 | 30.86 |
| PACIFIC MARINE ENVIR LAB | 2 | 0 | 0 | 0 | 2 | 0 | .00 |
| DEPT OF DEFENSE | | | | | | | |
| CORPS OF ENGINEERS | | | | | | | |
| ALASKA DISTRICT | 2 | 0 | 0 | 0 | 2 | 0 | .00 |
| ALBUQUERQUE DISTRICT | 28 | 0 | 0 | 0 | 28 | 28 | 100.00 |
| BALTIMORE DISTRICT | 86 | 0 | 0 | 0 | 86 | 83 | 96.51 |
| BUFFALO DISTRICT | 21 | 0 | 0 | 0 | 21 | 16 | 76.19 |
| DETROIT DISTRICT | 27 | 0 | 0 | 0 | 27 | 22 | 81.48 |
| FORT WORTH DISTRICT | 123 | 0 | 0 | 0 | 123 | 112 | 91.06 |
| GALVESTON DISTRICT | 14 | 0 | 0 | 0 | 14 | 14 | 100.00 |
| HUNTINGTON DISTRICT | 280 | 0 | 0 | 0 | 280 | 258 | 92.14 |
| KANSAS CITY DISTRICT | 102 | 0 | 0 | 0 | 102 | 98 | 96.08 |
| LITTLE ROCK DISTRICT | 90 | 0 | 0 | 0 | 90 | 88 | 97.78 |
| LOS ANGELES DISTRICT | 21 | 0 | 0 | 0 | 21 | 20 | 95.24 |
| LOUISVILLE DISTRICT | 106 | 0 | 0 | 0 | 106 | 101 | 95.28 |
| MEMPHIS DISTRICT | 45 | 0 | 0 | 0 | 45 | 35 | 77.78 |
| NASHVILLE DISTRICT | 79 | 0 | 0 | 0 | 79 | 75 | 94.94 |
| NEW ENGLAND DIVISION | 0 | 0 | 51 | 0 | 51 | 48 | 94.12 |
| NEW ORLEANS DISTRICT | 40 | 0 | 0 | 0 | 40 | 38 | 95.00 |
| OMAHA DISTRICT | 125 | 0 | 0 | 0 | 125 | 122 | 97.60 |
| PHILADELPHIA DISTRICT | 18 | 0 | 0 | 0 | 18 | 17 | 94.44 |
| PITTSBURG DISTRICT | 178 | 0 | 0 | 0 | 178 | 171 | 96.07 |
| PORTLAND DISTRICT | 11 | 0 | 0 | 0 | 11 | 11 | 100.00 |

REPORT DATE/TIME
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DAPS
USER SUMMARY REPORT FOR MAY 1989

PERCENT OF SYSTEM BY USER

| | |
|---------------------------|-------|
| CANADIAN USERS | |
| CANADA | 12.48 |
| CANADIAN USERS (total) | 12.48 |
| DOMESTIC USERS | |
| COLORADO STATE UNIV. | .04 |
| MASS. INST. OF TECHNOLOGY | .45 |
| MICHIGAN TECH INSTITUTE | .04 |
| TEXAS A&M UNIVERSITY | .03 |
| UNIV. NEW HAMPSHIRE | .05 |
| UNIV. OF NEBRASKA | .04 |
| UNIVERSITY OF CALIFORNIA | .16 |
| UNIVERSITY OF COLUMBIA | .13 |
| UNIVERSITY OF HAWAII | .51 |
| UTAH STATE UNIVERSITY | .73 |
| DOMESTIC USERS (total) | 2.74 |
| FEDERAL USERS | |
| DEPT OF AGRICULTURE- | 4.14 |
| DEPT OF COMMERCE | 12.00 |
| DEPT OF DEFENSE | 26.91 |
| DEPT OF ENERGY | 1.01 |
| DEPT OF INTERIOR | 30.11 |
| OTHER FEDERAL AGENCIES. | 1.75 |
| FEDERAL USERS (total) | 75.92 |
| OTHER USERS (total) | 2.94 |
| STATE USERS | |
| STATE OF ALASKA | .10 |
| STATE OF CALIFORNIA | 2.25 |
| STATE OF COLORADO | 3.44 |
| STATE OF WASHINGTON | .13 |
| STATE USERS (total) | 5.92 |

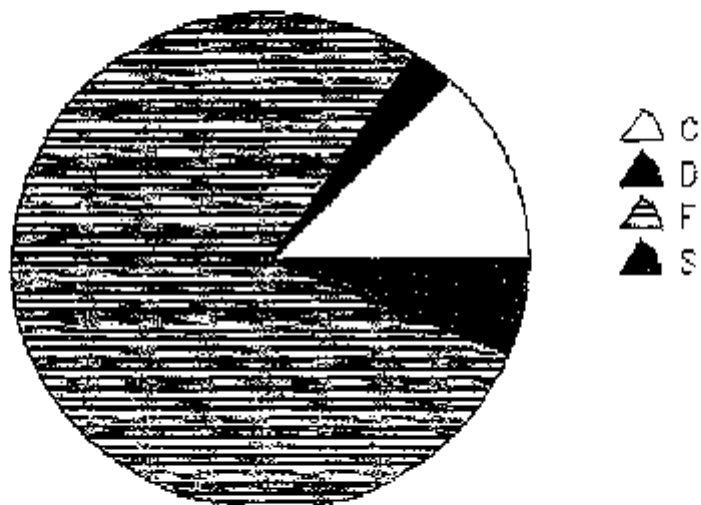
GOES DCS USER DISSEMINATION SUMMARY

| | DOMSAT | DIALIN LINE | NMC | DIRECT READOUT |
|----------|--------|-------------|-----|----------------|
| CANADIAN | 0 | 0 | 0 | 15 |
| DOMESTIC | 0 | 4 | 0 | 15 |
| FEDERAL | 0 | 49 | 5 | 17 |
| OTHER | 0 | 1 | 6 | 5 |
| STATE | 0 | 4 | 0 | 2 |
| TOTALS | 0 | 58 | 11 | 54 |

GOES DCS DCP SUMMARY

| | D | I | R | S | ACTIVE | %ACT | % INC | % INC % SYS |
|----------|----|---|-----|------|--------|-------|-------|----------------|
| | | | | | | ASN | ACT | |
| CANADIAN | 4 | 0 | 1 | 993 | 703 | 12.7 | .0 | 12.5 |
| DOMESTIC | 0 | 0 | 39 | 180 | 82 | 1.5 | .0 | 2.7 |
| FEDERAL | 85 | 0 | 181 | 5803 | 433 | 178.2 | .0 | 75.9 |
| OTHER | 34 | 0 | 0 | 201 | 84 | 1.5 | .0 | 2.9 |
| STATE | 0 | 0 | 0 | 473 | 337 | 6.1 | .0 | 5.9 |

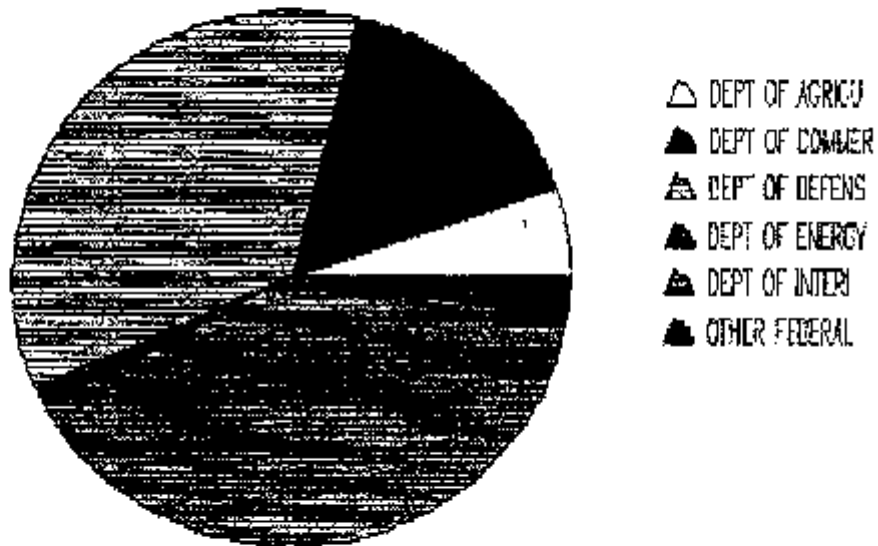
Percent Assigned by User Type
May



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Percent of Federal Users Assigned

May



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DAPS
TEST TRANSMITTER REPORT FOR May 1989

| CHANL | DEMOD | AUT | TT | TEST | MISS | PARITY | | ADDR | | BAD | |
|-------|-------|-----|----|------|------|--------|------|------|------|-----|------|
| SCID | /SLOT | TST | ID | MSGs | MSGs | % | ERRS | % | ERRS | % | QMS |
| 033/E | 04/01 | N | 1 | 0036 | 0009 | 25.0 | 0000 | .0 | 0000 | .0 | 0000 |
| 005/E | 02/05 | N | 1 | 0040 | 0011 | 27.5 | 0000 | .0 | 0000 | .0 | 0000 |
| 007/E | 02/01 | N | 1 | 0023 | 0001 | 4.3 | 0000 | .0 | 0000 | .0 | 0000 |
| 009/E | 02/06 | N | 1 | 0021 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 011/E | 02/07 | N | 1 | 0022 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 013/E | 04/02 | N | 1 | 0020 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 015/E | 02/08 | N | 1 | 0024 | 0001 | 4.2 | 0000 | .0 | 0000 | .0 | 0000 |
| 017/E | 04/03 | N | 1 | 0020 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 019/E | 04/04 | N | 1 | 0020 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 021/E | 03/03 | N | 1 | 0020 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 023/E | 01/10 | N | 1 | 0021 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 025/E | 03/10 | N | 1 | 0022 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 027/E | 04/05 | N | 1 | 0015 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 035/E | 04/06 | N | 1 | 0019 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 041/E | 03/07 | N | 1 | 0019 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 043/E | 02/09 | N | 1 | 0021 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 047/E | 04/07 | N | 1 | 0022 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 055/E | 02/02 | N | 1 | 0022 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 061/E | 01/06 | N | 1 | 0022 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 067/E | 04/08 | N | 1 | 0018 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 071/E | 01/07 | N | 1 | 0022 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 077/E | 01/02 | N | 1 | 0022 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 079/E | 02/10 | N | 1 | 0022 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 083/E | 03/01 | N | 1 | 0013 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 091/E | 03/08 | N | 1 | 0023 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 093/E | 03/02 | N | 1 | 0021 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 095/E | 01/04 | N | 1 | 0042 | 0012 | 28.6 | 0000 | .0 | 0000 | .0 | 0000 |
| 115/E | 03/05 | N | 1 | 0017 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 117/E | 01/05 | N | 1 | 0017 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 119/E | 04/10 | N | 1 | 0012 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 121/E | 01/09 | N | 1 | 0020 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 125/E | 01/08 | N | 1 | 0023 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 127/E | 03/09 | N | 1 | 0013 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 129/E | 03/06 | N | 1 | 0018 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 151/E | 01/01 | N | 1 | 0018 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 224/E | 01/03 | N | 1 | 0001 | 0001 | 100.0 | 0000 | .0 | 0000 | .0 | 0000 |
| 228/E | 03/04 | N | 1 | 0000 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 230/E | 02/03 | N | 1 | 0000 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 234/E | 04/09 | N | 1 | 0000 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 002/W | 22/01 | N | 1 | 0000 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 004/W | 23/10 | N | 1 | 0022 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |
| 006/W | 24/01 | N | 1 | 0024 | 0002 | 8.3 | 0000 | .0 | 0000 | .0 | 0000 |

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| | | | | | | | | | | | |
|-------|-------|---|---|------|------|-----|------|----|------|----|------|
| 010/W | 24/02 | N | 1 | 0022 | 0001 | 4.5 | 0000 | .0 | 0000 | .0 | 0000 |
| 014/W | 23/03 | N | 1 | 0021 | 0000 | .0 | 0000 | .0 | 0000 | .0 | 0000 |

| | | | | | | | | | | |
|-------|-------|---|---|------|------|------|------|---------|----|------|
| 016/W | 23/01 | N | 1 | 0021 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 022/W | 24/03 | N | 1 | 0018 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 024/W | 24/04 | N | 1 | 0021 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 026/W | 21/10 | N | 1 | 0021 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 028/W | 24/05 | N | 1 | 0021 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 030/W | 24/06 | N | 1 | 0019 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 034/W | 23/02 | N | 1 | 0021 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 036/W | 22/03 | N | 1 | 0022 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 038/W | 24/07 | N | 1 | 0022 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 040/W | 22/04 | N | 1 | 0021 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 042/W | 22/05 | N | 1 | 0018 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 044/W | 24/08 | N | 1 | 0021 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 046/W | 00/00 | N | 1 | 0000 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 048/W | 23/04 | N | 1 | 0019 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 050/W | 22/09 | N | 1 | 0021 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 052/W | 24/09 | N | 1 | 0022 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 054/W | 22/10 | N | 1 | 0022 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 056/W | 22/02 | N | 1 | 0015 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 058/W | 21/01 | N | 1 | 0017 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 060/W | 21/08 | N | 1 | 0021 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 062/W | 21/03 | N | 1 | 0020 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 064/W | 21/06 | N | 1 | 0019 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 066/W | 21/09 | N | 1 | 0017 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 072/W | 23/07 | N | 1 | 0020 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 080/W | 23/08 | N | 1 | 0021 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 096/W | 23/09 | N | 1 | 0022 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 118/W | 23/05 | N | 1 | 0012 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 124/W | 21/05 | N | 1 | 0017 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 126/W | 21/04 | N | 1 | 0016 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 128/W | 23/06 | N | 1 | 0010 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 134/W | 21/02 | N | 1 | 0008 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 224/W | 24/10 | N | 1 | 0002 | 0001 | 50.0 | 0000 | .0 0000 | .0 | 0000 |
| 228/W | 21/07 | N | 1 | 0000 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 230/W | 22/06 | N | 1 | 0000 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 234/W | 22/08 | N | 1 | 0000 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |
| 262/W | 00/00 | N | 1 | 0000 | 0000 | .0 | 0000 | .0 0000 | .0 | 0000 |

| | | | | | | | | | | |
|---------|---------|--------|--------|--------|--------|--------|--------|--------|----|---------|
| TOTALS: | TEST | MISSED | | PARITY | | ADDRES | | BAD | | |
| | MSGs | MSGs | % | ERRS | % | ERRS | % | QMS | % | |
| EAST | 0000751 | | 000035 | 4.7 | | 000000 | .0 | 000000 | .0 | 0 0 |
| | | | | | | | | | | 0 0 |
| | | | | | | | | | | 0 0 |
| | | | | | | | | | | .0 |
| WEST | 0000656 | | 000004 | .6 | 000000 | .0 | 000000 | .0 | | 0 0 0 0 |
| | | | | | | | | | | 00 |
| | | | | | | | | | | .0 |
| | 0001407 | 000039 | 2.8 | 000000 | .0 | 000000 | .0 | 000000 | .0 | |

REPORT DATE/TIME:
6-06-89 18:19:52

DAPS
MAJOR OUTAGE REASONS
MAY 1989

| | INCIDENTS | DOWN TIME | % | TOTAL |
|-------------------------|-----------|--------------|---|-------|
| EAST DCPI: | 000 | 000-00:00:00 | 0 | 000 |
| | | 000-00:00:00 | | |
| NO OUTAGE | | | | |
| EAST DCPR: | | | | |
| NO OUTAGE | 000 | 000-00:00:00 | 0 | 000 |
| | | 000-00:00:00 | | |
| WEST DCPI: | | | | |
| NO OUTAGE | 000 | 000-00:00:00 | 0 | 000 |
| | | 000-00:00:00 | | |
| WEST DCPR: | | | | |
| NO OUTAGE | 000 | 000-00:00:00 | 0 | 000 |
| | | 000-00:00:00 | | |
| OTHR TYPE: | | | | |
| NO OUTAGE | 000 | 000-00:00:00 | 0 | 000 |
| | | 000-00:00:00 | | |
| TOTAL OUTAGE ALL CAUSES | = | 000-00:00:00 | | |
| TOTAL NUMBER OF OUTAGES | = | 0000 | | |
| SYSTEM AVAILABILITY | = | 100.00% | | |

APPENDIX G

CURRENT DEMOD DRAWER AND DEMOD SLOT DEFINITIONS

Init_Demod_Drawers.CMD

```
DEMOM_DRAWER 1  ENABLED=Y  SCID=E  END
DEMOM_DRAWER 2  ENABLED=Y  SCID=E  END
DEMOM_DRAWER 3  ENABLED=Y  SCID=E  END
DEMOM_DRAWER 4  ENABLED=Y  SCID=E  END
DEMOM_DRAWER 21 ENABLED=Y  SCID=W  END
DEMOM_DRAWER 22 ENABLED=Y  SCID=W  END
DEMOM_DRAWER 23 ENABLED=Y  SCID=W  END
DEMOM_DRAWER 24 ENABLED=Y  SCID=W  END
```

Init_Demod_Slots CMD

| | | | | | | |
|-----------------|----|----|-----------|----------|-----|-----|
| UPD DEMOD_SLOT | 1 | 1 | ENABLED=Y | CHANNEL= | 151 | END |
| UPD DEMOD_SLOT | 1 | 2 | ENABLED=Y | CHANNEL= | 77 | END |
| UPD DEMOD_SLOT | 1 | 3 | ENABLED=Y | CHANNEL= | 224 | END |
| UPD DEMOD_SLOT | 1 | 4 | ENABLED=Y | CHANNEL= | 95 | END |
| UPD DEMOD_SLOT | 1 | 5 | ENABLED=Y | CHANNEL= | 117 | END |
| UPD DEMOD_SLOT | 1 | 6 | ENABLED=Y | CHANNEL= | 61 | END |
| UPD DEMOD_SLOT | 1 | 7 | ENABLED=Y | CHANNEL= | 71 | END |
| UPD DEMOD_SLOT | 1 | 8 | ENABLED=Y | CHANNEL= | 125 | END |
| UPD DEMOD_SLOT | 1 | 9 | ENABLED=Y | CHANNEL= | 121 | END |
| UPD DEMOD_SLOT | 1 | 10 | ENABLED=Y | CHANNEL= | 23 | END |
| tJPD DEMOD_SLOT | 2 | 1 | ENABLED=Y | CHANNEL= | 7 | END |
| UPD DEMOD_SLOT | 2 | 2 | ENABLED=Y | CHANNEL= | 55 | END |
| UPD DEMOD_SLOT | 2 | 3 | ENABLED=Y | CHANNEL= | 230 | END |
| UPD DEMOD_SLOT | 2 | 4 | ENABLED=Y | CHANNEL= | 232 | END |
| UPD DEMOD_SLOT | 2 | 5 | ENABLED=Y | CHANNEL= | 5 | END |
| UPD DEMOD_SLOT | 2 | 6 | ENABLED=Y | CHANNEL= | 9 | END |
| UPD DEMOD_SLOT | 2 | 7 | ENABLED=Y | CHANNEL= | 11 | END |
| UPD DEMOD_SLOT | 2 | 8 | ENABLED=Y | CHANNEL= | 15 | END |
| UPD DEMOD_SLOT | 2 | 9 | ENABLED=Y | CHANNEL= | 43 | END |
| UPD DEMOD_SLOT | 2 | 10 | ENABLED=Y | CHANNEL= | 79 | END |
| UPD DEMOD_SLOT | 3 | 1 | ENABLED=Y | CHANNEL= | 83 | END |
| UPD DEMOD_SLOT | 3 | 2 | ENABLED=Y | CHANNEL= | 93 | END |
| UPD DEMOD_SLOT | 3 | 3 | ENABLED=Y | CHANNEL= | 21 | END |
| UPD DEMOD_SLOT | 3 | 4 | ENABLED=Y | CHANNEL= | 228 | END |
| UPD DEMOD_SLOT | 3 | 5 | ENABLED=Y | CHANNEL= | 115 | END |
| UPD DEMOD_SLOT | 3 | 6 | ENABLED=Y | CHANNEL= | 129 | END |
| UPD DEMOD_SLOT | 3 | 7 | ENABLED=Y | CHANNEL= | 41 | END |
| UPD DEMOD_SLOT | 3 | 8 | ENABLED=Y | CHANNEL= | 91 | END |
| UPD DEMOD_SLOT | 3 | 9 | ENABLED=Y | CHANNEL= | 127 | END |
| UPD DEMOD_SLOT | 3 | 10 | ENABLED=Y | CHANNEL= | 25 | END |
| UPD DEMOD_SLOT | 4 | 1 | ENABLED=Y | CHANNEL= | 3 | END |
| UPD DEMOD_SLOT | 4 | 2 | ENABLED=Y | CHANNEL= | 13 | END |
| UPD DEMOD_SLOT | 4 | 3 | ENABLED=Y | CHANNEL= | 17 | END |
| UPD DEMOD_SLOT | 4 | 4 | ENABLED=Y | CHANNEL= | 19 | END |
| UPD DEMOD_SLOT | 4 | 5 | ENABLED=Y | CHANNEL= | 27 | END |
| UPD DEMOD_SLOT | 4 | 6 | ENABLED=Y | CHANNEL= | 35 | END |
| UPD DEMOD_SLOT | 4 | 7 | ENABLED=Y | CHANNEL= | 47 | END |
| UPD DEMOD_SLOT | 4 | 8 | ENABLED=Y | CHANNEL= | 67 | END |
| UPD DEMOD_SLOT | 4 | 9 | ENABLED=Y | CHANNEL= | 234 | END |
| UPD DEMOD_SLOT | 4 | 10 | ENABLED=Y | CHANNEL= | 119 | END |
| UPD DEMOD_SLOT | 21 | 1 | ENABLED=Y | CHANNEL= | 58 | END |
| UPD DEMOD_SLOT | 21 | 2 | ENABLED=Y | CHANNEL= | 134 | END |
| UPD DEMOD_SLOT | 21 | 3 | ENABLED=Y | CHANNEL= | 62 | END |
| UPD DEMOD_SLOT | 21 | 4 | ENABLED=Y | CHANNEL= | 126 | END |
| UPD DEMOD_SLOT | 21 | 5 | ENABLED=Y | CHANNEL= | 124 | END |
| UPD DEMOD_SLOT | 21 | 6 | ENABLED=Y | CHANNEL= | 64 | END |
| UPD DEMOD_SLOT | 21 | 7 | ENABLED=Y | CHANNEL= | 228 | END |
| UPD DEMOD_SLOT | 21 | 8 | ENABLED=Y | CHANNEL= | 60 | END |
| UPD DEMOD_SLOT | 21 | 9 | ENABLED=Y | CHANNEL= | 66 | END |
| UPD DEMOD_SLOT | 21 | 10 | ENABLED=Y | CHANNEL= | 26 | END |
| UPD DEMOD_SLOT | 22 | 1 | ENABLED=Y | CHANNEL= | 2 | END |
| UPD DEMOD_SLOT | 22 | 2 | ENABLED=Y | CHANNEL= | 56 | END |
| UPD DEMOD_SLOT | 22 | 3 | ENABLED=Y | CHANNEL= | 36 | END |
| UPD DEMOD_SLOT | 22 | 4 | ENABLED=Y | CHANNEL= | 40 | END |
| UPD DEMOD_SLOT | 22 | 5 | ENABLED=Y | CHANNEL= | 42 | END |
| UPD DEMOD_SLOT | 22 | 6 | ENABLED=Y | CHANNEL= | 230 | END |

APPENDIX H ERROR MESSAGES

Init_Event_Messages.CMD

```
UP ME_ENABLED (001:200) N
UP ME_ENABLED (001) Y! xxx consecutive errors for platform pppppppp
UP ME_ENABLED (002) Y! xxx consecutive errors for chan ccc-s
UP ME_ENABLED (005) Y! Special trigger received from xxxxxxxxx I for yyyyyyyy
UP ME_ENABLED (006) Y! Test trigger received from xxxxxxxxx I for yyyyyyyy
UP ME_ENABLED (007) Y! Interrogate queue-s full
UP ME_ENABLED (009) Y! Corrupted LMD entry xxxxxxxxx
UP ME_ENABLED (010) Y! Corrupted LMS data for LMD entry xxxxxxxxx
UP ME_ENABLED (011) Y! Unexpected test transmission on ccc-s
UP ME_ENABLED (012) Y! Test data compare / parity error on ccc-s
UP ME_ENABLED (013) Y! Address error during test on channel ccc-s
UP ME_ENABLED (014) Y! Bad quality measurements for channel ccc-s
UP ME_ENABLED (015) Y! Test failures exceed maximum on ccc-s
UP ME_ENABLED (016) Y! Missing test transmission on ccc-s
UP ME_ENABLED (021) Y! Primary GMD pointer file is invalid; limited I roll-back
UP ME_ENABLED (022) Y! Secondary GMD pointer file is invalid; GMS/GMD I flushed
UP ME_ENABLED (023) Y! LMS data not up-to-date; possible data loss
UP ME_ENABLED (024) Y! No prior data in LMS; possible data loss
UP ME_ENABLED (025) Y! Last GMS data not in LMS; possible data loss
UP ME_ENABLED (031) Y! Possible loss of data on demod ddd/ss
UP ME_ENABLED (032) Y! Demod failure detected on ddd/ss
UP ME_ENABLED (035) Y! AB_DBMS.DAT contents not valid; AB_DBMS.BAK IS I used
UP ME_ENABLED (036) Y! AB_DBMS.BAK contents not valid; default values I used
UP ME_ENABLED (037) Y! AB_LOG.DAT contents not valid; backup is used
UP ME_ENABLED (038) Y! no valid log is available; log is flushed
VP ME_ENABLED (039) Y! AB_RUNTIME.DAT contents not valid; backup used
UP ME_ENABLED (040) Y! AB_RUNTIME.BAK contents not valid; backup used
UP ME_ENABLED (042) Y! AB_STATS.DAT contents not properly check pointed
UP ME_ENABLED (043) Y! AB_STATS.DAT contents not valid; contents reset
UP ME_ENABLED (051) Y! <table_entry> added
UP ME_ENABLED (052) Y! Platform <platform_id> commanded (command = x)
UP ME_ENABLED (053) Y! <table_entry> deleted
UP ME_ENABLED (054) Y! <queue> flushed
UP ME_ENABLED (055) Y! Platform <platform_id> interrogated
UP ME_ENABLED (057) Y! Switch initiated
UP ME_ENABLED (059) Y! <table/parameter> updated
UP ME_ENABLED (071) Y! message seq num not received from QMI
UP ME_ENABLED (072) Y! CRC or message seq error received from QMI
UP ME_ENABLED (073) Y! message seq num not increaseing for QMI
UP ME_ENABLED (077) Y! DCP ? interrogated due to strg from ? on IM_?
UP ME_ENABLED (078) Y! DCP ? interrogated due to ttrg from ? on IM_?
UP ME_ENABLED (080) Y! Old TT - data channel enabled is off
UP ME_ENABLED (081) Y! Old TT - test loop back is on
UP ME_ENABLED (082) Y! Old TT test transmitter enabled is off
UP ME_ENABLED (083) Y! Old TT - test transmitter status in local mode
UP ME_ENABLED (084) Y! Old TT - test transmitter status is off
UP ME_ENABLED (101) Y! Automatic switchover was initiated due to I F/E failure
UP ME_ENABLED (102) Y! Automatic switchover was initiated due to I R/T failure
UP ME_ENABLED (103) Y! Manual switchover has completed
UP ME_ENABLED (104) Y! Fallback switch failure detected
UP ME_ENABLED (105) Y! Fallback switch is now operational
UP ME_ENABLED (106) Y! Local area network down
UP ME_ENABLED (107) Y! Local area network is now operational
UP ME_ENABLED (108) Y! Backup RS232 link is down
```

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UP ME_ENABLED (109) Y! Backup RS232 link is now operational
```

UP ME_ENABLED (110) Y! Local NASA time code is in fly-wheel mode
 UP ME_ENABLED (111) Y! Local NASA time code is back to normal mode
 UP ME_ENABLED (112) Y! Remote NASA time code is in fly-wheel mode
 UP ME_ENABLED (113) Y! Remote NASA time code is back to normal mode
 UP ME_ENABLED (114) Y! Time drift on primary DAPS between system and NASA times
 UP ME_ENABLED (115) Y! Time drift on backup DAPS between system I and NASA times
 UP ME_ENABLED (116) Y! Time source changed to x (N:NASA S:System)
 UP ME_ENABLED (117) N! Change in IFPD status from xxxxxxxx to yyyyyyyy
 UP ME_ENABLED (118) Y! GMS / GMD buffer pools are full; Checkpoint failure
 UP ME_ENABLED (119) Y! GMS / GND request pools are full; Internal failure
 UP ME_ENABLED (120) Y! Badtime field! used for archiving
 UP ME_ENABLED (121) Y! Timeout detected on quality monitor link
 UP ME_ENABLED (122) Y! Timeout detected on DONSAT link
 UP ME_ENABLED (124) Y! Timeout detected for message (GMS) archival
 UP ME_ENABLED (125) Y! Interrogate Modulator front-end (ISC) failure
 UP ME_ENABLED (150) Y! Backlog queue full - deleting oldest entry
 UP ME_ENABLED (151) Y! DOMSAT FE reported an error
 UP ME_ENABLED (152) Y! Fatal error - terminating task
 UP ME_ENABLED (153) Y! NMC link down
 UP ME_ENABLED (154) Y! NMC link up

UP ME_ALARM (001:200)N
 UP ME_ALARM (001) N ! xxx consecutive errors for platform pppppppp
 UP ME_ALARM (002) N ! xxx consecutive errors for chan ccc-s
 UP ME_ALARM (005) N ! Special trigger received from xxxxxxxx I for yyyyyyyy
 UP ME_ALARM (006) N ! Test trigger received from xxxxxxxx I for yyyyyyyy
 UP ME_ALARM (007) N ! Interrogate queue-s full
 UP ME_ALARM (009) Y ! Corrupted LMD entry xxxxxxxx
 UP ME_ALARM (010) Y ! Corrupted LMS data for LMD entry xxxxxxxx
 UP ME_ALARM (011) N ! Unexpected test transmission on ccc-s
 UP ME_ALARM (012) Y ! Test data compare / parity error on ccc-s
 UP ME_ALARM (013) Y ! Address error during test on channel ccc-s
 UP ME_ALARM (014) Y ! Bad quality measurements for channel ccc-s
 UP ME_ALARM (015) Y ! Test failures exceed maximum on ccc-s
 UP ME_ALARM (016) Y ! Missing test transmission on ccc-s
 UP ME_ALARM (021) Y ! Primary GMD pointer file is invalid; limited I roll-back
 UP ME_ALARM (022) Y ! Secondary GMD pointer file is invalid; GMS/GMDI flushed
 UP ME_ALARM (023) Y ! LMS data not up-to-date; possible data loss
 UP ME_ALARM (024) Y ! No prior data in LMS; possible data loss
 UP ME_ALARM (025) N ! Last GMS data not in L}IS; possible data loss
 UP ME_ALARM (031) Y ! Possible loss of data on demod ddd/ss
 UP ME_ALARM (032) Y ! Demod failure detected on ddd/ss
 UP ME_ALARM (035) Y ! AB_DBMS.DAT contents not valid; AB_DBMS.BAK IS I used
 UP ME_ALARM (036) Y ! AB_DBMS.BAK contents not valid; default values I used
 UP ME_ALARM (037) Y ! AB_LOG.DAT contents not valid; backup is used
 UP ME_ALARM (038) Y ! no valid log is available; log is flushed
 UP ME_ALARM (039) Y ! AB_RUNTIME.DAT contents not valid; backup used
 UP ME_ALARM (040) Y ! AB_RUNTIZ~1E.BAK contents not valid; backup used
 UP ME_ALARM (042) Y ! AB_STATS.DAT contents not properly checkpointed
 UP ME_ALARM (043) Y ! AB_STATS.DAT contents not valid; contents reset
 UP ME_ALARM (051) N ! <table_entry> added
 UP ME_ALARM (052) N ! Platform <platform_id> commanded (command = x)
 UP ME_ALARM (053) N ! <table_entry> deleted
 UP ME_ALARM (054) N ! <queue> flushed
 UP ME_ALARM (055) N ! Platform <platform_id> interrogated
 UP ME_ALARM (057) N ! Switch initiated

UP ME_ALARM (059) N ! <table/parameter> updated
 UP ME_ALARM (071) N ! message seq num not received from QMI
 UP ME_ALARM (072) N ! CRC or message seq error received from QMI
 UP ME_ALARM (073) N ! message seq num not increasing for QMI
 UP ME_ALARM (077) Y ! DCP ? interrogated due to strg from ? on IM_
 UP ME_ALARM (078) Y ! DCP ? interrogated due to ttrg from ? on IM_
 UP ME_ALARM (080) Y ! Old TT - data channel enabled is off
 UP ME_ALARM (081) Y ! Old TT - test loop back is on
 UP ME_ALARM (082) Y ! Old TT - test transmitter enabled is off
 UP ME_ALARM (083) Y ! Old TT - test transmitter status in local mode
 UP ME_ALARM (084) Y ! OldTT - test transmitter status is off
 UP ME_ALARM (101) Y ! Automatic switchover was initiated due to a F/E failure
 UP ME_ALARM (102) Y ! Automatic switchover was initiated due to a R/T failure
 UP ME_ALARM (103) Y ! Manual switchover has completed
 UP ME_ALARM (104) Y ! Fallback switch failure detected
 UP ME_ALARM (105) N ! Fallback switch is now operational
 UP ME_ALARM (106) Y ! Local area network down
 UP ME_ALARM (107) N ! Local area network is now operational
 UP ME_ALARM (108) Y ! Backup RS232 link is down
 UP ME_ALARM (109) N ! Backup RS232 link is now operational
 UP ME_ALARM (110) Y ! Local NASA time code is in fly-wheel mode
 UP ME_ALARM (111) N ! Local NASA time code is back to normal mode
 UP ME_ALARM (112) Y ! Remote NASA time code is in fly-wheel mode
 UP ME_ALARM (113) N ! Remote NASA time code is back to normal mode
 UP ME_ALARM (114) Y ! Time drift on primary DAPS between system and NASA times
 UP ME_ALARM (115) Y ! Time drift on backup DAPS between system and NASA times
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 UP ME_ALARM (117) Y ! Change in IFPD status from xxxxxxxx to yyyyyyyy
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 UP ME_ALARM (124) N ! Timeout detected for message (GMS) archival
 UP ME_ALARM (125) Y ! Interrogate Modulator front-end (ISC) failure
 UP ME_ALARM (150) N ! Backlog queue full - deleting oldest entry
 UP ME_ALARM (151) Y ! DOMSAT FE reported an error
 UP ME_ALARM (152) Y ! Fatal error - terminating NMC task
 UP ME_ALARM (153) N ! NMC link down
 UP ME_ALARM (154) N ! NMC link up